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MARCH 2003



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GRAB LIFE BY THE HORNS

A red Dodge Caravan is parked on a driveway in front of a white house. A woman and a young child are standing next to the car, holding a blue umbrella. The car's hood and windshield are wet with raindrops. The scene is set in a suburban neighborhood with green grass and a white picket fence.

**SOME SUPERHEROES
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MARCH 2003

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With the wide spectrum of exterior colors, you can let a lot or a little of the natural color and texture of your house's wood siding come through. For more, see "Exterior Stains," page 88.

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A step-by-step guide to lighting the driveway. BY JENNIFER TAYLOR

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How to take control of the clutter crisis in your home



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cover

The garage is a natural magnet for mess, but the Wilsons' alcohol and workshop also qualify as clutter "hot spots." In more of clutter-free space-efficient thinking, to help you take charge, we've gathered a wealth of innovative ideas and clever organizers in "Storage Solutions," page 97. PHOTOGRAPH BY JOHN KERNICK

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C O N T E N T S



to no experiment do a youngster might like in the thought of drilling through walls to fish away electrical wires, says writer **JOHN DEERE**. For this month's *Blackboard's* Handbook, "Turning a Garage Ropertop" is 373, he tells readers how to add a garage by tapping into an existing net and air uniting way through a surface without a window. "While it may be too elaborate for a final-school room, using, much as it can be and only way for a service to connect into a garage, porch, as workshop." Train, who has written three books on and woodwork for *Popular Mechanics* and *Today's Homeowner*, is the author of *Shed, Build Like a Pro*, published in February 2004 by Thomas Nelson.



When it comes to applying extreme heat, "preparation of the wood surface is 70 to 90 percent of the job," says **JOHN HEDRICK**, "America's Stain," p. 98. He learned the hard way, when he put a fresh coat of stain on his 280-year-old Pennsylvania barn beam without cleaning the pine surface first—a sprongy stain will cut two to three years off the life of the finish. Hedrick, who has renovated his first five houses, is the former national director of Beadex,



“You don’t have to have a gun to make minor repairs to your social furniture,” says Emmitte, says MICHAEL CRONIN. In “Using the Pail” (page 56), Emmitte shares easy fixes like, such as filling slots in quarter with clear putty and making scratches disappear with a wood-stain crayon. Emmitte, a former columnist for *For Woodworkers*, *American Woodworker*, and *Woodworker’s Journal*, is currently working his sixth book, a wood-finishing reference guide scheduled for release in the fall of 2015.

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L E T T E R S

Fighting the Weekly Atelectasis

There is no doubt... "I Need Wives" (December 2004) was clarifying to me as a practitioner interested in all things the type of how fast the hook woefully mislead really is and look at gender treatment. The view of most postulated articles is that hook ingestion [mislead] are a last-resort treatment. They have produced damage in the test tube. There are other least-used methods but are less damaging to the test, less expensive for the client, and just as effective. As for an ideological spin, it much less hook (mislead) than others could have been substantiated and still achieved the same results.

Eric R. Ducommun, International
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While pitting into the ice may be effective, the immediate can still launch into the ground and grow later. Perhaps, it does structurally hardly occur in the situation of a late species, *Pseudogynis fagus*, which was reported like others to release in Connecticut.

As a property owner with empty air-conditioned rooms, I want to protect the beautiful species, but do so in a way that is less damaging to the environment.

J. L. Lichtenhan, R. W. Smith, C. Davis

the *Almagest* of the usually adopted in North America's scientific institutions is no longer, around 1900, the University of Massachusetts astronomer Fred Chittenden, who consulted with 'Old John' Adams at the Washington project. 'It is true that Ptolemy is a highly naive astronomer. Another, less naive, respectable astronomer, however, or its replacement, is often used,' he says. Cited without attribution, Chittenden says, editors of most US TV programs and with 25 years in the field, agrees that 'systematic ignorance is part of one of many kinds and techniques used in combining false-related points', and that 'horizontalization of queries are effective alternative for clients who prefer not to see themselves, but they are not practiced in the case because the point is right next to the house. Regarding historical distance to the true history operation, Fred says, 'The result, [as most] have done, is neither a 'real' model.

In my view this is a lesser injury than what is caused by the insect itself. "Parasitism means, or joy means nothing, it will hang out and for its attachment as a predator of the

delivered and is not available to the public. It also expresses its price—“about a dollar per ton for both,” says Childs, “and they receive diamonds in about a week too.”

Water Hardness

In the December 2022 article on water heaters, "Getting Into Hot Water," you did not mention the best-on-demand models, the ones that blend propane. Are there not an equal replacement for the tankless heater? They are more efficient, save space, and are available in electric gas, and propane. What are FOH's thoughts on these types of water heaters?

Heather Brown, Houston, Tex.

These specialized, limbless lizards are indeed useful in some homes, but may not be right for all. *Mammals* interested in becoming more are invited to read "A Tailless Job," June 2001. (7th-order back cover, see *More* at www.ck12.org, page 6.)

Abstract

It's important to a welder's question in Ask The Old House In November 2003, Richard Tethering explains that flat-panel radiators are not compatible with steam. However, that's only partly true. A year ago I found a well-maintained outdoor panel radiator that stands only 25 inches off the wall and is easily as aesthetically pleasing as some of the flat-panel radiators for hot-water systems. It was easy to install, and there are models compatible with one- or two-pipe steam systems. The radiators are being distributed in the U.S. by a enterprising company of Florida (yellow manufacturer panel radiators). Check out www.steamdirect.com.

ERIC W. BARNES, *Ph.D., M.D.*

punch list

addition, a list of items incorrectly shown as remaining is also displayed as a remaining item (e.g.,

- * In the December 2002 *Chronicle*, the CD-theft info, the telephone number listed for "Tony's" was listed but lost. The correct number is 808-438-1544.
- * In "Shadows: A Retrospective" (page 124) in 2002, the book was misquoted on page 124 to be "the shadow" instead of "the shadow" as it was in the book. The correct quote is, "the shadow" as it was in the book.
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JOHNNIE WALKER



QUALITY TAKES
TIME

Every woodworker has a favorite piece. For Frank Klaus, it's his Queen Anne lowboy. He uses curly maple, hand-carves every detail, and charges \$6,000 (yet there's still a 2-year waiting list). Not bad for a guy who grew up in Hungary and started with nothing.

Frank's cabinery greets the hordes of celebrities, politicians, and business moguls. He gives seminars across the country. But most of all, he loves working in his shop and teaching his apprentices.

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Frank Kluetz at his cabinet shop in Fluckersburg, N.J.
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LEFT: Dream Kitchen winner Mike and Heidi Smith with their kids, Michael, Kate, and Ellie, outside their home. TOP: Steve Thomas and Katie Couric announce the Dream Kitchen search on ABC's *Toddy* show. ABOVE: Steve Thomas poses for a broadcast from the Washington Area, prepped.

Meet Our Winners

Illinois family chosen in the *This Old House* Dream Kitchen search

Over a thousand entered, but just one lucky family did it all: Mike Smith and Heidi Smith and their 3-year-old triplets, all Lake Forest, Illinois. It all started in September, when *TODD* host Steve Thomas invited entries for the first-ever Dream Kitchen search on ABC's *Toddy* show. Mark and Heidi landed the call, and were in a videotape showing the changed kitchen in their 1928 Tudor home. Their submission went on *Toddy* along with those of the five other finalists. By online ballot, *Toddy* show viewers voted the Smiths over

the women's entry. Now the *TODD* crew will lead a band in the Smiths' dream kitchen becomes a reality. For Heidi, the experience has been nothing short of surreal. "When they announced the winner on the *Toddy* show, I remember thinking, 'Oh, what a lucky family!' Then I realized they were talking about us. It truly is a dream come true."

Stay tuned to the *Toddy* show checks in on the work in progress, and look for complete coverage of the project on the *This Old House* TV show, its upcoming series of the magazine, and on the Web site at www.thisoldhouse.com.

<p>This Old House Personal Appearance Calendar March 2003</p>	<p>TONY SILVA March 16 Southern Tier Home & Landscape Show, The Coach USA Center, Elmira, NY Details: 877-633-6136</p>	<p>{ "I have not failed. I've just found 10,000 ways that won't work." —Thomas A. Edison }</p>
<p>TONY SILVA & EDWARD WATKINS March 23 The Pennsylvania Home Builders Show, The State Farm Show Complex, Harrisburg, PA. Details: 800-271-0001</p>	<p>STEVE THOMAS March 28 ABC's <i>Scary Star</i> Program: Greater Kansas City Home Show, Kansas City Convention Center, Bartle Hall, Kansas. 816-343-8500; www.kchome.com</p>	

CONTRIBUTORS: Gini Delicata, Mark Powers

PHOTO: JAMES HARRIS FOR THIS OLD HOUSE

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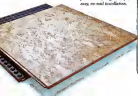
boost. Interlocking lip roofs help maintain the new structure with the old, as do the ridge-to-ridge brack angles. From the second story, the Murphys can now enjoy both the lake and the bay in style.

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What I Learned the Hard Way

by STEVE THOMAS, TODAY SHOW HOST

Back in 1980, when I was a house builder, I worked for a French housebuilder named Dioronic. Their day was a master of the trade—the Norm. Always of high construction. The one rule he lived by was to quit at six o'clock sharp, no exceptions. We were building a 77-foot house, and Dioronic had me work one of the cul-de-sac roofs. It was a construction piece of cake, with a complex roof profile, and I had over a year of the day. The clock came and I'm a man away from Dioronic. I'm dead tired, but I go about my work and end up missing the press through the new backdoor.

In the years of silence I hear the noise of the dry's work. Dioronic says to me, "Ah, Steve, now you know why I always go home at six." The moral of the story, of course, is to call it quits when your energy and concentration are still strong, or else accidents are bound to happen. I've never forgotten it.

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HOUSE CALLS WITH STEVE

Once little more than a storage room of cheap cabinets (1940s), the kitchen now has painted cupboards, a farmhouse sink, and beautiful wallpapering that are right in sync with the house's 1920s architecture.



Thoroughly Modern Vintage

A kitchen conceals high-tech appliances behind 1920s details

by Heather Smith MacLennan

When Donna and Stephen Centrone purchased their 1920s bungalow in Rockton, Massachusetts, they knew it needed updating. "There was Sevinx rug carpeting and flaked wallpaper everywhere, and the kitchen was ugly and very bare-bones," says Donna. In fact, the 12-by-13-foot kitchen was nothing more than a single lower bank of cabinets with a stainless sink as a laminate countertop. There was a roll-away dishwasher and a table and chairs—but no stove or refrigerator in sight. And taking much of the wall space were four doorways to other areas of the house. "There was nothing worth saving," says Donna.

"As useful as it was, the kitchen did Donna and Stephen a huge favor," says The Old House host Steve Thomas. "It let them start from scratch."

PHOTOGRAPHS BY GREG FREEMAN



"WE ASKED. THEY CAME.
WE WERE FLOORED."

Our readers and viewers bombarded us with questions. We love it that they're so involved. So much so, we created a special new series called "Ask This Old House" to give them some answers. More personal answers delivered right to their doorsteps.

If you have a question and would like to be on this new show, write us at www.thisoldhouse.com/askoh. Our answer might be a real shoo-in!

Watch for "Ask This Old House", starting October 10th on **Opry**



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MAKING A PLAN

Getting the space (with the exception of an original maple floor) allowed the couple to create the kitchen of their dreams. "We wanted the feel of a 1930s kitchen, but with modern appliances," says Donna. They turned to designer Catherine Seyler, of Kitchen Concepts in Norwell, Massachusetts, to create their dream kitchen.

Seyler's plan called for relocating the basement doorway to the foyer and moving a radiator to free up wall space. He then designed two work zones: a bank of cabinets along the sink wall and another row of cabinets on the opposite wall to house the range and fridge. A third wall designed for storage would be distinguished by an old-fashioned bench, rather than more cabinetry.

Floor Plans

PERIOD LOOK, MODERN AMENITIES

Seyler's mission to design gave the room a true-to-the-'30s feeling. For the area above the sink, he designed a pair of glass-front cabinets joined by a bench-top display shelf reminiscent of built-in plate racks of the period. Flat-panel cupboards flank the farmhouse sink, and headboard-style cabinets surround the professional-grade stainless steel range and fridge. These are the only appliances

replaced. Carved up by four doorways, the 12-by-13-foot kitchen is both cozy and casual space, as well as smart key appliances.

AFTER: While the four-door doorway remained the same, the basement doorway and nearby radiator were moved to free up space for a professional range and fridge.



BEFORE: With the help of vintage-style cabinets and a period tub faucet, the sink area—steel range and pre-style gas filler—blend right in. The fridge (in the right of the image) is built into a glass cabinet front. **AFTER:** A built-in sink built with an Apron and Crafts look provides extra storage. **BEFORE:** A space-saver bench is in the basement wall under set of extra space and protects their fragile neighbors from the heat of the stove. (For more on storage ideas, see page 22.)

that are modern, the dishwasher, refrigerator, and freezer drawers are all cleverly concealed behind false door and drawer fronts. Throughout, the maple cabinetry is painted white and accented with glass knobs and pulls.

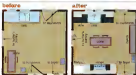
FINISHING TOUCHES

To provide ample storage at longing with the rest of the house, Seyler commissioned a pantry built at second-quarter-wood. The doors have flat panels and are finished with Ann and Crafts-style brass hardware. "Though having both painted and wood cabinets lends a mix-and-match feel, they are consistent in style," says Steve. "In addition, the designer stayed within a limited palette of colors and materials, which gives the small kitchen a calm and unified look."

The room is lit with 6-foot high recessed lighting of custom-etched quarter-wood heads. At the center of the room is a oak table and chairs, which Seyler deemed more period-appropriate than a island. The total cost of the makeover: \$55,000.

In the final analysis, says Steve, Donna and Seyler accomplished their goal. "They made the most of their space, and designed smart and appliances with period cabinetry. If you don't look closely, you might think you'd walked right back into the Thirties." ■

The 2004 Dream Kitchen is under way. Go to www.thisoldhouse.com (MO, keyword: This Old House) and click on the Dream Kitchen link.



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Inspired by an antique, this stacked wood rack holds 30 jars of spices. Its minimalist look is as easy on the eye as it is on the palate. From [http://www.ikea.com](#), \$199 (shown expanded).



This wood spice rack features open jars in a drawer and two rows of built-in jars for easy access. It's made of solid wood. From [http://www.ikea.com](#), \$99.



Round function: These small glass jars are perfect for a well-stocked kitchen. They're made of clear glass and have a metal lid. From [http://www.ikea.com](#), \$2.99 (shown expanded).

In the kitchen featured on pages 16-20, a shallow spice rackboard was cleverly carved out of a shelf built into the wall. The right spice rack can help you make the most of the space you have, too. Here are five products that help spices expand and easily accessible yet take up little or no counter space. All are readily available at home centers, online, or by mail.



Here's a compact, yet still handy, spice rack. It's made of wood and has a built-in shelf for spices. From [http://www.ikea.com](#), \$24.99.



Made of solid wood, this spice rackboard is a great addition to any kitchen. It's made of solid wood and has a built-in shelf for spices. From [http://www.ikea.com](#), \$49.



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STOPPING TOILET OVERFLOWS

Four of the five toilets in my house overflow frequently—two of them clog up every month and it's costing a lot of money to snake them out. I've used three different plumbers and none has been able to come up with a solution that lasts. Two of the toilets are on the second floor, two on the first floor, and one is in the basement. Some are of the low-water-consumption type, but not all of them. I'm at a loss.

ANDY BOONER, LIVINGSTON, N.J.

Richard Trethewey replies: The fact that this is happening to more than one toilet on more than one occasion tells me it's probably not a toilet problem. AND it's not the main drain leading away from the house. If something were plugged first, you'd see overflows at all the lower toilets as the pipes backed up. So I think what's happening is more likely due to a blocked vent, a vertical pipe connected to all plumbing fixtures. The vent pulls in air from the outside typically through a roof vent, replacing the air that's sucked down the drainpipe with every flush.

To see what happens when a vent is plugged by, say, a dead animal or construction debris, put your finger on one end of a water-filled straw. Now make sure you have the straw's other end in the vent pipe. When you lift your finger and let air in.

You may also have "wet venting," a configuration where the drain of one fixture (or more) serves as the vent for another. This setup could clog more than one, as when each fixture has a separate connection to the main stack. Either way, the solution is to hire a plumber to inspect and, if necessary, clean out your vent pipes as well as the main vent stack: either from the roof or from the main drain's outlet.

WEATHERED STORMS

My wife and I need to replace some of the original wood-framed storm windows on our 1911 Dutch Colonial house. What sort of wood should I use that won't rot away? And if I don't find the time to build them, when sort of contractor should I call?

GUY PATRICK, SAUGUNNY, CALIF.

Morm Moore replies: The last you can't get more of what you need the builders used in 1911—there must have been great stuff. Of course, wood that lasts that long also owns a lot to whatever took care of it. Properly maintained, in fact, most of the windows that are typically used outdoors last for hundreds of years. But even the best wood will suffer badly if it's neglected.

Given the unusual longevity of your storm, I suspect that the frames might have been quartered, a way of cutting wood that results in boards that are dimensionally stable—just the thing for storm window frames. The wood in your storm was probably white pine or a local hardwood, but these days, I'd use either cypress or straight-grained red cedar, both of which are naturally rot resistant and not too



The original wood storm windows on this house lasted more than 90 years. Wood replacements should last at least that long, if properly made and maintained.

help. If you really want to do this right, use mortise-and-tenon joints at the corners, along with an exterior-grade wood-working glue.

If this isn't a project you want to tackle yourself, a local millwork shop can make them for you. Then, before the glass is installed, coat them liberally with a water-repellent wood preservative, a couple of coats of oil-based primer, and two or three coats of a top-quality acrylic-latex paint. If the paint is a true cure of those windows should last as long as the original did.



WIRES

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SQUIRRELS BEHAVING BADLY

I was preparing to paint my house when I discovered five damaged windows. It appears that squirrels have been reaching up down and past the window frame. How should I go about making repairs?

JOHN H. BOSTON, JOHN S. SANCHEZ, MO

Tom Silva explains: Squirrels aren't after your attic for food. Either they're looking for a place to live, or they're just doing what comes naturally to rodents: gnawing to keep their front teeth from growing too long. Before you start repairs, prune nearby trees to remove any limbs that are serving as their highways to your house.

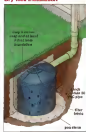
The best fix for a gnawed sill depends on how bad the damage is. It can be too deep or extensive, you can cut out the damaged area, prime it, and fill with a patch of solid wood called a dunnage. (For more on making a dunnage, see *Home's* *How-to Book*, January/February 2009, p. 82.) If it makes it out of luck, stick plastic glue with polyurethane glue, then sand it flat. For deeper voids, drilled down to firm wood, coat it with primer, then fill with a squirt from a can of expanding polyurethane foam. When the foam hardens, cut off any of the excess up to the flush with the surrounding surface, then fill any voids with an epoxy wood filler or an auto-body filler. Once the filler is hard, paint the sill. But if the squirrels have eaten away so much wood that patches or fillers aren't practical, you'll have to remove the entire sill and replace it.

BACKUP-UP DOWNPOUTS

We purchased an early 1950s home that was converted to a house about 5 years ago. The place is in great shape, but for one thing: Two of the downspouts lead into the ground, and clear up lower areas they back up. How can we solve this problem?

CURTIS BROWN, ROCKFORD, ILL.

Dry Well Installation



Flanger Cook explains: First, take down the downspouts and leaders and remove any debris, if they're clogged. The problem is somewhat underground. It is the kind of problem that takes time.

Downspouts that discharge into the ground under one or a pipe (usually PVC) that leads to one of three locations: in a municipal storm-sewer system, to "daylight" (a point lower than the

When a buried downspout backs up, a plugged dry well could be the cause. Dry wells like the one shown can be cleaned out through a hatch on top. Otherwise, the entire dry well may need to be excavated.

house where water can flow out at grade level), or to a dry well, sometimes called a catch basin, which is filled with one stone or another and percolates into the surrounding soil.

But offensive drainage is stopped up somewhere underground by dirt and leaves, by tree roots, or from being clogged by concrete trash driving up the lawn, a common occurrence during remodels. (As daylight drains, check first for the discharge end of the pipe.)

Sometimes dirt and leaves can be poked out with a hand-held plumbing snake or flushed out by sticking a hose with a high-pressure garden nozzle down the pipe. Avoid power snakes, they'll clear blockages in metal pipes, but can destroy the lightweight plastic pipe that's typically used here.

If that doesn't work, I'll hire a metal plumbing snake into the pipe to determine where the blockage is. Then use a metal detector to find the end of the snake. (You could also get a pretty good idea where the clog is by marking the snake close to the ground after it hits the stop and then taking it out and measuring from the mark to the snake's end.) Next, dig up the area around the blockage from out and out and replace the stopped or clogged section of pipe.

If water will back up after the downspout is cleaned, then the culprit is probably a clogged dry well. Often, the only solution is to dig it out and replace it. This 30-gallon plastic dry well I use is made with a hatch in the top. That way if the snail ever clogs, it can be cleaned out easily without having to dig up.

After digging a pit, I lower the assembled well into it, then connect the downspout. I like to use Schedule 40 pipe, which doesn't rust as much as Schedule 40 steel is known to crack their lightweight Schedule 20. And before the well is buried, I always wire it with landscape fabric to keep soil out. Then surround it with pea stone to encourage water dispersion.

LEAKY PORCH ROOF

We purchased an 84-year-old two-story house that has a 40- to 50-year-old leak porch on the ground floor. The porch roof leaks where it meets the side of the house. Are there any easy solutions, other than reroofing the entire porch?

LEO TALLER, NEWPORT NEWS, VA

Tom Silva explains: It's always tricky to pinpoint the exact location of a leak. When it appears to originate in one area, but water is actually seeping in unexpected paths. So before you jump into this job, try to determine where the leak is coming from. If the porch has a finished ceiling, for example, remove a few boards and check the underside of the roof sheathing for water stains—they may help pinpoint the leak's location. In the case of a joist-planked roof, you may have no alternative but to remove all the roofing just to track down the problem.

Chances are, the leakage is probably due to the flashing on the existing exterior wall. (Or maybe, covered or improperly installed flashing is a common problem at this location [it's not at all at other locations], but it's the roofing material that is the good candidate, you may have to remove an area of roofing to get to some of the stuff to replace any damaged flashing. (Generally, the only reasonable remedy of the roofing would be if it's tearing the end of its useful life anyway.) A possible roofing replacement should be able to make this repair for you.

Reinforcing the temptation to turn the problem over to a professional with a bucket of cash, you might save some money in the short run, but skimping on labor on the flashing doesn't really fix the problem, and you actually

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Fixing the Finish

How to make nicks, dings, and scratches in furniture disappear

When you live in a museum, your home takes a lot of hits. We've seen leaves behind when steps Daily use wear away the finish on the edges of tables and chairs. And then there are all the little scratches, dents, and dings that mysteriously appear on wood surfaces. Don't despair. This kind of superficial damage can be fixed quickly and easily without harming your furniture or your wallet. (If you have a fine piece of antique furniture, you may want to leave repairs to a professional restorer.)

The easy repair techniques on the following pages will work on any clear finish—lacquer, varnish, polyurethane, or shellac. You'll find the few materials you'll need, such as denatured alcohol, wax sticks, and tooth up

medicals, in the great end Barbers make at most home-improvement stores. Look for scratch-cover polish in the cleaning supplies section.

Before making any repairs, clean the furniture thoroughly with a solution of denatured alcohol or Murphy Oil Soap and water to remove all wax, grease, oil, or polish (see "Waxing Is Clean," page 48). Once you've cleaned the piece, make repairs in the order: water rings first, followed by surface scratches, deep scratches, and then dings and nicks.

After that, all you can do to keep a finish looking as best as it can with a damp cloth, wipe up spills as soon as possible, and occasionally clean all oil, grease and dirt with mild dishwashing soap and water.

To correct the many small scratches marring the tabletop, finish repair expert Michael Drescher simply rubs on a stick of scratch cream, a fine sandpaper polish. Applied with a clean rag, just like regular furniture polish, a single stick is enough to make most damage disappear.

PHOTOGRAPHS BY WILLIAM WRIGHT



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ALUMINUM
 Aluminum is a soft metal that can be easily scratched or dented. To remove scratches, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.

BRASS
 Brass is a soft metal that can be easily scratched or dented. To remove scratches, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.

COPPER
 Copper is a soft metal that can be easily scratched or dented. To remove scratches, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.

IRON
 Iron is a soft metal that can be easily scratched or dented. To remove scratches, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.

STEEL
 Steel is a soft metal that can be easily scratched or dented. To remove scratches, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.

WOOD
 Wood is a soft material that can be easily scratched or dented. To remove scratches, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a wood polish (like Brasso) and a soft cloth.

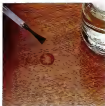
WATER STAINS
 Water stains are caused when water vapor penetrates into a finish, can be removed by rubbing them gently with a soft, barely dampened with denatured alcohol. (If the rings indicate damaged wood and require complete removal of the surrounding finish before any repair can be attempted.) Too much alcohol can dull the finish. If that happens, rub with a clean cloth or rubbing with more fine-grit sandpaper and polish with a soft cloth. To remove the stain, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.

SHALLOW CHIPS
 When a clear finish is chipped but the underlying color is intact, fill the chip with a few drops of clear nail polish. After the polish dries, sand flush with 600-grit sandpaper. To restore the finish, use a metal polish (like Brasso) and a soft cloth.



Water stains

White rings, caused when water vapor penetrates into a finish, can be removed by rubbing them gently with a soft, barely dampened with denatured alcohol. (If the rings indicate damaged wood and require complete removal of the surrounding finish before any repair can be attempted.) Too much alcohol can dull the finish. If that happens, rub with a clean cloth or rubbing with more fine-grit sandpaper and polish with a soft cloth. To remove the stain, use a fine-grit sandpaper (150-grit or finer) to gently rub the surface. For deeper scratches, use a finer sandpaper (220-grit or finer). To remove dents, use a rubber mallet to gently tap the surface. To restore the finish, use a metal polish (like Brasso) and a soft cloth.



Shallow chips

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Gouges, nicks, and dings

- A gouge sometimes has a slightly raised bar around its perimeter. Level it by sanding lightly with 100-grit paper (1).
- Next, choose a wax stick that closely matches the finish or blend two or more sticks together (in your hand or in the gouge) to get just the right color. Push the stick over the gouge until it's slightly overfilled with wax (2).
- Scrape off the excess wax with the edge of a credit card (3). The wax should fill the gouge, rub off any wax on the surrounding surface with a piece of a brown paper bag wrapped around a flat block.
- Apply a coat of polish wax over the repair and the entire adjacent surface to impart an even sheen.



Large scratches and worn edges

Put up last-minute repairs to a variety of wood tones to match various furniture finishes. Use them to color large scratches or edges where the stain has worn away. Apply only to damaged areas, and wipe immediately if any gets on the neighboring finish.

KEEPING IT CLEAN

On the shelves of super-markets, hardware stores, and home-improvement centers you can find dozens of products that promise to clean, pick up dust, repolish, and a lot more—or all of the above—to your furniture. The truth is that although none of them will do your finish any harm, none is absolutely necessary to keep furniture looking its best.

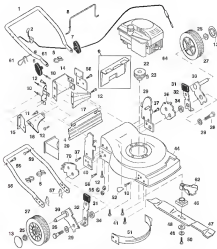
Coating with a dry cloth generates friction, which creates a slight static charge on the surface that in turn attracts more dust. Dusting/polishing sprays, such as Pledge, reduce the static and help the rag hold the dust, but a heavy cloth does both these things just as well. Some sprays leave behind a thin film of oil that temporarily makes shine, but the oil acts like a magnet for whatever dust lands on it.

For repolishing, diluted white vinegar or furniture oil (which is basically oil) can be used to polish. Avoid using alcohol or ammonia-based cleaners (like window cleaners). They can harm some finishes. Additionally, use scrubbing cloths, which contain abrasives that will cut through any sheen.

For a quick way to fix damaged veneer surfaces, go to www.1800sears.com (1-800-4-MY-HOME) and type "veneer blaster" in the search box.

This is an image of:

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- ☐ b. Some kind of ancient language
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Choosing & Using pruners and loppers

Tools and techniques
to keep your plants
looking their best

by John Kenney

If you've got even one shrub, sooner or later you'll need to remove unruly growth and dead or injured branches. With the right assortment of pruners and loppers (pruners are one-handed tools, loppers require two hands), you can keep any plant healthy and well measured, from rosebushes and shrubs to privacy hedges and small trees. (See page 73 for season-by-season pruning techniques.)

"The first tool you should buy is a pair of bypass pruners," says Roger Cook, The Old House landscape contractor. "You can use them for everything, so it's worth investing about \$50 for a good pair, cheaper ones can fall apart with all the use." Because bypass blades sweep past each other like scissors, they're best for making clean cuts in living wood. For chopping dead branches, you'll want to add an anvil lopper (about \$30), which has a blade that hits against a soft plate, and a folding saw (about \$25) for slicing through thick branches. "You'll be able to manage most pruning chores with that set of tools," Roger says.

Pruning can be heavy repetitive work, and trying to take too big a bite with the wrong tool is the quickest way to increase your own weariness and frustration while also shortening the life of your equipment. Certain tools, like those with compound-action gears, will make the task easier. But the best way to keep things comfortable whenever you go out to prune is to wear gloves and make sure your tools are clean and sharp.



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Types of Pruners

**Bypass**

Blade and bell slide past each other like scissors.
BEST FOR: clean cuts on live branches
NOT GOOD FOR: dry, dead branches, which can get jammed between the blades, bending them

Bypass lopper

Choose bypass loppers when you need to trim back an overgrown shrub or tree that's healthy. The long handles give you more leverage, so you can cut larger stems—up to 1½ inches—easily without.

This model has telescoping metal handles that extend from 25 to 38 inches, plus a compound-action mechanism, which further increases the power you put into the cut.

Bypass pruner

Use bypass pruners on living stems 1½ inch or less in diameter, to prune-savvy Frank Demers, pruning roses or perennials, or snipping herbs from the garden. These cuts must be as close as possible to maintain the plant's health, so keep the blades sharp (see page 46).

Bypass pruners get so much use, spring for a well-made tool for this one, with ergonomic handles and blades that move smoothly.

Anvil

Blade chops against soft plate, usually metal.

BEST FOR: chopping dead shrubs and branches
NOT GOOD FOR: live branches, because anvil crushes soft stems

Anvil lopper

Get a rough-cutting anvil lopper to do the grunt work of chopping off thicker dead branches (up to 2 inches) or trimming back live ones before you make the final cut with bypass pruners.

The short handles on this model are easier to maneuver inside tight shrubs, and an extra gear increases cutting power.

Anvil pruner

An anvil pruner can strip away dead twigs and breakers up to 1½ inch. The wide steel pruners close slowly, but the jaws won't jam up with wood inside the way a bypass pruner can.

Tools with a ratchet that can't be released, like this one, are generally less expensive and can be discarded when the steel has become dented from excessive higher-priced models typically have replaceable anvils.

Folding saw

Rubber down by the neck, a thick tree about half the girth of a legging, needs for a folding saw. The perfect size tool is also handy for cutting branches into manageable pieces.

Look for saws like this one with a blade that locks in the open position and sharp irregular teeth—four to six per inch—that have a 15-degree edge at the tip.



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DOOR CONSTRUCTION

Every door takes a beating, battered by the elements as well as by a house's occupants. So strength is a door as important as style.

The best doors are made with frames and panel construction.

This inherently adaptable style has its form firmly rooted in function. A frame-and-panel door—made up of vertical members called stiles and horizontal ones called rails, with joints in between—won't shrink, swell, or warp the way a solid slab of wood can. Fitted into grooves in the frame, the panels are free to expand and contract with the seasons.

How the frame is joined is another important consideration. Traditional joinery is mortise and tenon, which provides maximum strength and durability. It makes sense to insist on it for your custom door, unless the craftsman can convince you that an alternate system is just as strong. Downside, for instance, widely used in factory-made doors, are considered inferior by many woodworkers. But some fine craftsmen can do the technique, turning their own large-diameter doors from re-saturated wood and inserting several as each major joint of the door.

Even the most robust joinery can fail, however, if a door's glue and finish can't stand up to the weather. Make sure your custom door is glazed and finished with rugged materials, such as waterproof epoxy or some even tougher exterior-grade paint, oil, varnish, or stain to extend. A good custom maker will be forthcoming about these important details.

CHOICE OF MATERIALS

One of the chief attractions to getting a custom door is the rich variety of woods available, many of them rarely used by commercial manufacturers. Mahogany and Spanish cedar, both excellent in their natural resistance to rot, are big favorites. In South Beach, Mass., Fred Wildauer builds exterior doors almost exclusively in mahogany. "Even if the finish were to fail, the wood holds up," he says. Bruce Lee, who makes doors in a shop he built on his property on California's Mendocino coast, favors redwood, another substrate against the weather, but he also builds with Honduras mahogany, white oak, and other attractive woods. At the moment he's got a batch of curly western black walnut on his drying rack, waiting for a customer with a yen for something spectacular.

The upper panels of an entry door are often filled with glass, but that's not the only option. Lee has built everything from single-panel doors with tongue and groove mahogany paneling that captures the feel of weathering to a recent pair of six-inch-thick hand-laminated glass. Other options for personalizing a door include relief carving, etched glass, copper paneling, and custom grilles and other hardware.

INSTALLATION AND COST

Custom doors typically arrive prehung—that is, already fitted with a swinging sill and jamb. The door maker supplies and sets the hinges, but he doesn't usually provide or install the lock and handles, a job best left to the person who installs the door. Most custom-door makers prefer half-hinging two hinges, which cost about twice as much as ordinary hinges but provide smoother operation and longer service.

The cost of a custom door means with its complexity. "The lower the door, the higher the price," Hilde says. The solid mahogany entry doors, solid prehung and coated with a weather-resistant primer, range from a bit over \$2,000 for a single door to about \$4,000 for something with a complex configuration of panels. Add windows above or on the sides, and the cost goes up. A custom door with a transom and sidelights—an "entry system," as the parlance of the trade—generally costs several thousand dollars more than a door alone. At the lower end of the price scale are interior doors, which typically run between \$300 and \$1,000. Because they are darker, lighter, and smoother than exterior doors they require less material, but offer the same opportunity for creative expression.

To prevent your investment, it's a good idea to dollar the entry from dollar exposure to sun and rain. A door that stands under some kind of awning, porch-roof, or porch roof will stand in strength and no later for longer than one that's left fully exposed. ▶

For a guide to locksets for your new door, go to www.locks.com (N.C. inspired). This site also lists and type "get a lock on it" in the search box.

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Doors of Distinction



REVELED GLASS
Brian Lee's Handmade millwork doors feature old hand-leveled glass, lignite and oil-rubbed bronze pulls. (brianleedesigns.com)



MERCAN STYLE
Made of 3-inch-thick sides, these rustic doors by Wayne Handmade have bronze wrought-iron grille and wood panels. (waynehandmade.com)



CUSTOM-CARVED
A medieval door by California craftsman Mike Knappe features carvings that "ripple" across its surface. The design shifts shape when he moves the picture to accommodate a knot in the wood.



TRADITIONAL
Rustic panel doors by Brian Lee are made of redwood and fitted on top with glass panels that echo the panel design.



CONTEMPORARY
A millwork double door has tall, narrow panels flanked by rows of small square lights. (brianleedesigns.com)



OLD WORLD
Rustic panels and honey-waxing make these unique custom doors by Wayne Handmade look like they've been in place forever.

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Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

Hello
my name is

▲ If your loved ones come here, remind them that you're "on your way to Ace Hardware" and "things will be better soon."

Overview

The floodlight shown here has two lamps and an elevated motion sensor, which automatically turns on the lights if a person or vehicle approaches the garage (they go off after a few minutes). Home electrical projects like this typically require you to connect wires to the main electrical panel and then fish them behind walls, under floors, and above ceilings—not an easy job. However, the wiring for this driveway floodlight is confined to the garage, so you can tip in to an existing electrical outlet and then use easy-to-install surface-mounted metal conduit to run the wiring.

The 3/4-inch diameter conduit, known as EMT (electrical metallic tubing) is sold at home centers and electrical suppliers for about 50 cents a foot. You can also purchase right-angle conduit connectors (#4) and preformed curved elbows (#3) that allow you to turn corners with the rigid metal. Master electrician Allen Gellert suggests replacing the two-plug outlet with a combination GFCI receptacle and switch (#22) brought out from the wall with an extension box (#4-53). He prefers to assemble a fixture from separate parts (about \$60 total) instead of buying a single unit, because that way he's able to upgrade the quality of the motion sensor.

WARNING: Before starting this project, turn off the electricity to the garage at the main electrical panel. Then test the garage receptacle by plugging in a radio or lamp to confirm that the power is off.

Anatomy



Tools and Materials



FLOODLIGHT

1. Round outlet box
2. Lamp-holder cover
3. Motion sensor
4. Lamp holders (8)
5. 80-watt halogen bulbs (2)

WIRING

6. 16-gauge insulated stranded wires
7. Twist-on wire connectors
8. Fish tape
9. 14/2 nonmetallic cable (see Form)

HARDWARE

10. 3/4-inch EMT conduit
11. Conduit elbows
12. Conduit hangers
13. Straight conduit couplers
14. Right-angle connectors with removable covers
15. Cable connectors
16. Metal junction box
17. Extension box with connector
18. Combination 16-wire GFCI receptacle and switch

19. 16-wire stripper
20. Wire snips
21. Magnetic torquedo level
22. 1/2-inch-long 7/16-inch spuds bit

TOOLS

23. 16-wire stripper
24. Magnetic torquedo level
25. 1/2-inch-long 7/16-inch spuds bit
26. 1/2-inch-long 7/16-inch spuds bit
27. Tape measure
28. Phillips-head screwdriver
29. Cordless drill/driver
30. Ladder
31. Hacksaw (to cut conduit)
32. Round file (to remove file)
33. 2-inch-long galvanized decking screws (for attaching electrical box to wall)
34. Silicone caulk (to seal hole)
35. Utility knife

Step by Step



1

Attach the extension box

- After turning off the electricity to the garage, remove one of the existing wall receptacles.
- Screw the metal mounting plate that comes with the extension box to the electrical box in the wall (below).
- Use a screwdriver to pry the round knockout plug from the top of the extension box. Attach a 3/4-inch metal conduit connector to the top of the box.
- Fasten the extension box to the mounting plate with the two long screws provided.



2

Connect the conduit

- Measure from the top of the extension box to the garage ceiling and then subtract 1/2 inch. Saw a piece of conduit to that dimension and fit snugly over the box.
- Slide a right-angle connector onto one end of the conduit. Insert the other end into the connector on the extension box.
- Put a conduit hanger on the conduit. Check that the conduit is perfectly plumb, then mark the hanger's position (above).
- Move the conduit and screw the hanger to the wall. Slip the conduit back into place and secure it by tightening the screws on the hanger.

TIP: Use a magnetic torquedo level, which sticks to the conduit.



5

Attach the round outlet box

- Fasten a cable connector to the hole in the base of the round outlet box.
- Feed the nonmetallic cable through the connector (below) then tighten the connector screw.
- Fit the hole in the wall with silicon caulk or putty.
- Press the round outlet box set against the siding and secure it with two 2-inch-long galvanized decking screws.

TIP: Use a connector whenever a cable or wire enters a box.



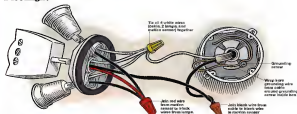
6

Pull the wires through the conduit

- Remove the cover plate from the right-angle conduit. Saw a hole in the wall nearest the wall receptacle extension box.
- Feed an electrician's fish tape into the connector and push it through the conduit until it comes out the extension box.
- Use electrician's tape to attach one end of the fish tape, and press 14-gauge stranded copper wires to the fish tape.
- Pull the fish tape until the wires come out of the connector then undo the fish tape.
- At the junction box, push the tape into the conduit. Then repeat the process for the other wires.

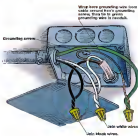
Wiring Connections

Floodlight



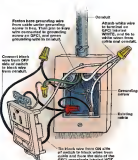
Notes: Wiring on preassembled floodlights may be different from that shown here. Follow manufacturer's wiring instructions or call an electrician.

Junction Box



For more wiring projects you can do yourself, go to www.thisoldhouse.com (JCL keyword: "The Old House") and type "electrical upgrades" in the search box.

Extension Box



3

Install a preformed conduit elbow

- Hold a conduit elbow against the wall corner and cut a piece of conduit to fit between the elbow and the right-angle connector.
- Insert the conduit into the right-angle connector; if it's longer than 12 inches, install a conduit fitting.
- Join elbow to the conduit with a straight coupling (see).
- Continue installing conduit across the front wall, ending it over the center of the garage door. Use tape every 12 inches.

4

Bore through the garage wall

- Measure from the top of the doorway to the ceiling and cut about 1 inch. Then move outside and mark the siding the elevation up from the center of the door.
- Bore a level hole through the garage wall with a 3/4-inch-diameter spade bit (see).
- Inside, connect a junction box to the conduit running across the front wall. Then secure the box to the ceiling.
- Run a length of 14/2-conduit cable (Romex) from the junction box through the hole to the outdoors.

7

Assemble the floodlight

- Carefully screw the motion sensor into the center hole in the mounting bracket holder.
 - Thread the two long holders into the holes on either side of the motion sensor (see).
 - Finger-tighten the motion sensor and long holders; don't use pliers. Final tightening and adjustment aren't done until after the floodlight is mounted on the garage wall.
- Tip:** If desired, spray-paint the floodlight to match the house. But not the sensor—paint might impede its performance.

8

Make the connections

- Tie the cable coming from the round outlet box to 6 inches and use a utility knife to cut away the plastic sheathing.
- Use wire strippers to remove 3/4 inch of the plastic insulation from the black and white wires.
- Join the cable to the floodlight (see), as detailed in "Wiring Connections" (see).
- Attach the floodlight with the screws and insert bulbs.
- Make the wire connections of the junction box and switch (see "Wiring Connections"). Then turn on the power and adjust the long holders and motion sensor.

LETTER FROM THIS OLD HOUSE

A Place for Everything

by Kevin Abram

A museum have been dealing with storage issues since the first rooms others went up on the shores of the New World. Today's homes have closets and basements, but our ancestors didn't have the space or materials for this, up until the 20th century, closets were a luxury. And while early Americans certainly had a lot less stuff than we do today, they still had a few things to store out of sight. So they built furniture. They created beautiful wardrobes for clothing, chests for bedding, and cupboards for food and dishes.

Even they had the right idea. For without linen that a lot of the weapons that I've researched on The New Yankee Workshop are still used for storage, but their original purposes have been redefined to suit the things we need to store today. The pin safe with pocket-hole joints, which would once have been used to keep valued goods safe from animals and thieves, now holds canned goods, wineboxes, or even bathroom linen. A linen press—a cabinet with pull-out shelves deep and wide enough to hold fine linen flat—is likely to contain a CD collection. And who hasn't admired a large mirror—once the only clothes closet found in most bedrooms—and opened it to find a complete entertainment center? The iron chest trunks became trophy display cases, chess cupboards filled with owens, and Master chests that hold toys.

There's something honey a host storing things in a piece of furniture that's beautifully crafted and has some history. Pulling a ready-to-fold towel from a period-piece jelly cabinet is much more satisfying than swinging open the built-in closet to grab some towels. In the kitchen at the TV show project house in Winchester, Massachusetts (see page 60), the 1920s lot of the room comes not just from the handsome cabinets hanging on the walls but from two pieces of functional furniture: the large, two-drawer table island and the open-top secretary.

Using furniture for storage is a great way to give a room more period atmosphere. It also gives you the opportunity to clear the floor of modern objects—refrigerators, stoves, or computers—that might a carefully decorated space. Just slide the drawers closed or swing the cabinets shut, and you'll swear you've stepped back a century or two.



Kevin Abram, TON master carpenter, likes the idea of using traditional furniture instead of built-ins to store our modern possessions.

coming next issue

April: On sale March 24

- Special section: Planning the ideal workshop
- A first look at the new TON Dream Kitchen project
- Putting the finishing touches on the Winchester TV house

PLUS

- Bright ideas for under-cabinet lighting
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from start to finish



How a kitchen goes

from idea to execution

From the first day it was clear: The kitchen at the *This Old House* TV project in Winchester, Massachusetts, was old, dark, and outlandish. When homeowners Kim Winchester and Bruce Leasure bought the house, they

got a 1960s cliché, down to the brown cabinets, gold-marbled Formica, and floral-stripe wallpaper. The room needed an overhaul, so the couple started planning almost as soon as they signed the check at the closing.



UPGRADE The old, 1960s kitchen (top) didn't suit the house—or the needs of a couple who like to entertain. Our secret before complete renovation (bottom): electronic alarm that we installed to let us know our guests had arrived. It's a custom, built-in alarm system, from top to bottom. **BEFORE** The nearly finished kitchen, ready for moving in.

Over the next six months, the Winchester kitchen was demolished, reimaged, measured, ordered, and installed. Carpenters, electricians, plumbers, flooring installers, and countertop fabricators created a period-

appropriate kitchen for the 1922 Colonial Revival house. Now it's the couple's ideal kitchen—maybe their favorite room. “We love every detail in here,” says Bruce. “And let me tell you, there were a lot to keep track of.”

by Alexandra Barden PHOTOGRAPHS BY WEBB CHAPPELL



This Old House TV Project [Winchester, Massachusetts]

Making the Plan

Homeowners Kim and Bruce started their kitchen overhaul where all *This Old House* homeowners start—with TGH general contractor Tom Silva and an architect—in this case David Leister. Studing, who designed the whole-house renovation, came up with a plan to expand the 13-by-18-foot kitchen to 480 square feet. Then the homeowners hired kitchen designer Jeff Peavey, co-owner of The Kestrel Company, to work out the cabinet details.

When Peavey first met with the couple, four months before the finish date—a rush job, for sure—he asked them what they liked and didn't like about other kitchens. The couple brought magazine clippings and talked about layout, finishes, hardware, lighting, counters, appliance placement, and hoods/corvey. "Even if a homeowner only has some of his or her preferences in mind," says Peavey, "that can help direct the conversation and the choices presented to them."

"Even if a homeowner only has some design preferences in mind, that can help direct the choices presented to them."

—JEFF PEAVEY, owner, the Kestrel Company

never use a formal dining room," says Kim. "We usually end up around the kitchen table." Peavey looked for inspiration to kitchens installed in Colonial Williamsburg during its 17th-century restoration, which had painted cabinets and large worktables. As they talked, Peavey sketched out a rough floor plan on graph paper. It was also clear that he then took back to the designers at his shop in Beth, Maine. Over the next few weeks, a crew of six designers worked on separate areas of the room, each combining their individual ideas to plan the full space. Their meetings produced a set of detailed pencil sketches, complete with elevations of each wall.

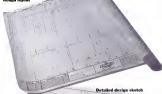
At the same time that they worked out the cabinet design, the designers and homeowners also chose appliances, counter tops, lighting, and flooring, all decisions that have to be made in concert to keep the layout in order. It wasn't until three details were noted out that Peavey could make final blueprints.

Kestrel took over construction of the framed-in room and produced mechanical drawings. After a few minor adjustments, Peavey gave the final plans to the shop-own workers, and cabinetry began to build Kim and Bruce's kitchen.

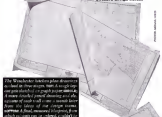
For more information on the Winchester project including virtual tours of the house, time-lapse movies of the entire renovation, and more, go to www.thisoldhouse.com or watch *Chris Keyte's This Old House* and click on This Old House Television Programs.

The Floor Plans' Stages

Rough layout



Detailed design sketch



The Winchester kitchen plan designers sketched in three stages. From a rough rough-out plan, through pencil sketches, to a more detailed pencil drawing and elevations of each wall, came a formal plan. From the ideas of the design team, came a final, measured drawing, from which the crew ran an ordered, solid plan. Designers used the wall planing as a final, solid, measured plan for the construction.

Engineered drawing



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This Old House TV Project (Winchester, Massachusetts)



Making It Happen

While the kitchen plans were being spread on paper, the Silva Booths on team ripped down the walls designed for demolition. Then they booted up a back wall support beam with steel and exposed lumber to support the two floors and roof above. "The upper levels were held up with just one 4x4," says Tim. "How's that for getting it wrong in 1922?" Only after he was confident the back wall was strong enough did Tim start framing.

With the layout established, the subcontractors marked the room for wall board. Master electrician Allen Gallant roughed in wiring for the lighting and appliances, while master plumber Ronald Caldwell installed pipes for the sinks, disposal, dishwasher, and refrigerator.

When the cabinets arrived, Stephen Long and Tim Donovan, finish carpenters with the patience of monks, took over. Slowly, carefully, they measured, scribed, sanded, planed, and leveled. In a week, they had installed the lower cabinets. That's when the suspense countertops came. Luckily, they could be cut to fit on site—some stone countertops require the cabinet installation to pass for a week or more while fabricators make a template for a shop to cut them.

Soon the room was abuzz with the sounds of the trades: carpenters, plumbers, electricians, fluters, all working in harmony. After months of preparation, cabinets went up and hardwood was wrapped around the walls of the room. Lighting fixtures were installed on the subfloor, and the open maple secretary found a home between two doors. Covered and clean on paper, the kitchen now was completely a room that needed another eye, displaying the craft and the size of many hands. ■



TOP: Making plans real. **TOR:** plumbing and framing expert Richard Timmons lays down subfloor joists and carpenter Gerald Smith installs insulation. **MIDDLE:** carpenter Stephen Long installs a cabinet as it will fit snugly (above), then slides the wall (bottom). **RIGHT:** Kim Whittemore steps the new fireplace casework.

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These tablets were experienced by people taking ADVAIR 100/50, compared with people taking a different fluticasone propionate 100 mcg and salmeterol 50 mcg (discuss problems) dose.

Please see important information on the following page.

pruning flowering shrubs

Young shrubs should be pruned lightly to make them grow fuller and bushier. With hard pruning, trim long, unbranched stems by cutting just above a healthy bud (see "Basic Pruning: Core Pruning Cuts," below). This type of pruning, called heading, encourages lower side branches to develop and enhances the shrub's natural form. When as-

suming a bud tip to trim it, keep in mind that the new branch will grow out in the direction of the bud. Like most pruning, heading cuts should be made in a series of steps.

As a shrub develops, trim out old, weak, rubbing, or new-wood branches where they merge with another branch (see "Basic Pruning Cuts: Thinning Cuts," below). This opens up the middle of the plant to more sunlight, which keeps interior branches healthy, stimulates growth, and increases flowering.

basic pruning cuts

heading cuts

Remove only part of a shoot or limb and encourage side branching and dense growth. The cut should be made just beyond a healthy bud (*point*), angled at 45 degrees and facing away from the bud. New shoots will grow in the direction the bud is pointing.



thinning cuts

Remove an entire branch where it meets another limb, the main stem, or the ground. They should be made as close to this position as possible. These cuts help maximize the plant's natural shape, limit its size, and open up the interior to light and air.



Older shrubs that have become a tangle of unproductive stems may require a more extensive program of thinning cuts, called renewal or restoration pruning, that takes at least three years. On shrubs with multiple stems that grow up from the base, like lilacs, viburnums, forsythias, and dogwoods, gradually remove all of the old stems while leaving the new, flower-producing growth untouched (see "Rejuvenating an Overgrown Shrub," below). Eventually, the new flower-producing stems will completely replace the lackluster old growth.

Neglected shrubs may call for a more drastic approach: hard pruning. Most deciduous shrubs that respond well to renewal pruning can also take hard pruning, as will a handful of broadleaf evergreens, such as perennials. Using loppers and a pruning saw, cut back all stems to within a inch of the ground during the plant's winter dormancy (For more on the correct tools to use, see Talking Shop, page 44.) Come spring, the plants will quickly produce new shoots from the base. Of course, this technique will leave you with lots to look at while waiting for the new growth.

revitalizing an overgrown shrub

year 1

Remove one-third of the plant's stems, cutting at the base.



This opens up its interior to air and sunlight and encourages new branches and leaf growth.

years 2 & 3

Cut every old and old stem whole (leaving newly formed stems intact).



The shrub is now made up of mostly new growth that is ready to flower.

pruning small flowering trees



Avoid pruning a young or newly planted tree—it needs as many leaves as possible to produce the food required for good root growth.

Remove only dead, broken, or injured branches, as well as those that cross or rub each other. And always prune back to a healthy stem or branch without leaving stubs. The damage is hiding places for pests and diseases, and looks better. Never cut back the plant's leader—the top-most growing point of the tree—which is vital to letting the tree develop its natural form.

Once the tree is a few years old, shape it gradually over the course of several years to maximize foliage and flowering. The tree's branches should be well-spaced up the trunk and spreading around

it. As a guideline, prune no more than one-fourth of the tree's total leaf area in a single year. To raise the tree's crown or create clearance beneath it, remove the lowest branches. Also target branches that are spaced too closely together so that you're not cutting at a narrow angle—45 degrees or less. These limbs weak limb attachments and will break easily in wind or under the weight of snow and ice.

When removing an entire tree branch, cut as close to the branch collar—the swollen ring of bark where the limb meets the main stem or trunk—as possible without cutting into it. When cutting branches more than 1 inch in diameter, avoid making or stopping back by using a pruning saw and the three-cut method shown below. A good pruning cut will heal quickly and naturally without the use of dressings or poisons.

Remove fast-growing stems, called suckers, that grow up from the roots or the base of the trunk as they appear, as well as the extreme portion (and often weakly attached) shoots, called waterpumps, that grow straight up from the trunk or branches.

Mature trees require only occasional pruning to maintain their structure and appearance. Never make the mistake of cutting off the top of a tree's canopy to reduce its size. This type typically leaves the tree much less attractive and much more prone to weak growth and pests.

three-cut branch removal

To prune a tree limb cleanly and safely, use a pruning saw and make three sequential cuts.



On the bottom of the limb between 6 and 12 inches from the trunk, cut about one-quarter of the way through.

Through the limb from the top, cutting about 1 inch beyond the first cut. (The weight of the branch may cause it to snap off before the cut is complete.)

Completely through the stem remaining stub from top to bottom just beyond the swollen branch collar. (Support the stub while sawing, to make a clean cut.)

what to prune from a tree

- A Limbs that grow from the roots or base of the trunk
- B Limbs that sag or grow close to the ground
- C Branches that form an acute angle with the trunk
- D Waterpumps that shoot up from main "scaffold" branches
- E Limbs that are dead, damaged, or broken
- F Branches that grow parallel to and too close to another
- G Branches that cross or rub against others
- H Limbs that compete with the tree's central leader

pruning conifers

Nearly leafed evergreens fall into two basic groups: random branching and whorled branching. Each requires a different pruning technique.

Evergreens with random branching patterns—cypresses, hemlocks, pines, and yews—should be pruned in the same manner as a flowering tree to shape the branching cuts to encourage dense growth and shaping cuts made close to the trunk to maintain the tree's shape. One important difference: Pruning cuts will only sprout new branches if the remaining branch still has needles growing on it.

Whorled-branching evergreens—firs, spruces, and pines—are quite different. These plants have pale growth buds, called catkins, that develop at the branch tips in the spring. Instead of making heading cuts, use your thumb and forefinger to pinch off the new, light-colored growth while they're still soft. This will stimulate plant size and produce denser growth. You must wait to make heading cuts to whorled-branching evergreens—they will produce a dried snag, not new growth. The only exception is spruce trees. They have adobe bark that will sprout if trimmed back to the previous year's growth.

pinching a candle

To encourage bushy subsequent growth on whorled-branching conifers like pine and spruce, use your fingers to pinch off these "candles," the pale green sprouts at the branch tips, as they develop in the spring.



when to prune

There is important pruning that can be done anytime—namely, the removal of dead, weak, damaged, or crossing branches. But poorly timed pruning, like that done in the fall or early winter, can injure a plant and stress or even eliminate its foliage and flower production. What follows are the three recommended pruning "seasons" for various common trees and shrubs across the country. Stick to this schedule to keep plants healthy and maximize blossoms. When in doubt, Roger Cook suggests, postpone pruning until right after the plant flowers.



Abnormalities: 74.5% normal; 25.5% abnormal

English words used: *Medusozoa*, *scyphozooids*, *lla*latewinter/
earlyspring

These summer-bearing plants, which will flower on the coming season's new growth, while they are still dormant. They have buds make a stay in the plant's structure, and the flush of spring growth will quickly heal wounds. From summer-bearing cactuses, new growth is visible.

THE JOURNAL OF THE

[illegible]

Business Unit (DBU) report
 provided to: KPMG LLP, United

Keywords:

- Charlie tree (*Viburnum spicatum*)
- Congo maple (*Lagerflandia speciosa*)
- Broad olive (*Quercus agrifolia*)
- Reddish-oak tree (*Q. bicolor*)
- Broad bay (*Magnolia virginiana*)

www.pearsoned.com.au/education/au/onlineextras

Schizothorax (Thiaxi species)
Cyprinus (Zaprewnasi species)
Rutilus (Tunga species)
Ambloplites (Amplonasi species)
Scaphiocranus (Puderskoy species)
Leuciscus (Koban species)
Tetraodon (Tetraodon species)

Trade tips and ideas
with other gardeners.
Go to www.thetraditional.com
(search: Christ keyword: This Old House)
And click the Garden tip link.

latespring/
earlysummer

These young flowering plants eventually also shed biennials' label. Because they produce flowers only on old growth from the previous season, growing next year allows seed movement. These plants are the new year. Push the seeds in whole, breaking seeds when you see new growth.

15.4.2019 08:08

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TABLE 1

- Flowering almond (*Prunus speciosa*)
- Flowering cherry (*Prunus serrulata*)
- Fringe tree (*Chionanthus virginicus*)
- Ornamental pear (*Pyrus calleryana*)
- Redbud (*Kerria speciosa*)
- Saunder magnolia (*Magnolia souderiana*)
- Star magnolia (*Magnolia speciosa*)
- Star magnolia (*Magnolia stellata*)
- Star hazel (*Hamamelis speciosa*)

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File (Matrix specified)
Methods (Matrix type: [Automatic] [Orthographic])
File (Plane specified)
System (Plane specified)

midsummer

Female "bleeding" rats—those with exceptionally heavy spring egg flow—value their livers less fully developed.

“**THE 2015-16**” 2015年16月

Hareb (Hareb species)
Oregano (Oregano species)
Ela (Ela species)
Maple (Maple species)
Sagebrush (Sagebrush species)



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Keywords: *Self-esteem, self-worth, self-concept, self-identity, self-esteem, self-worth, self-concept, self-identity*



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The decaying, century-old house ~~remained~~ stood empty for 15 years before Jack and Rhonda Hall began a hard ~~months/years~~ foot lift, which included removing long gone exterior porches ~~doors~~. They add a distinctly Southern flavor and help shield the entrance from the street. Texas one.

Up until three years ago, the abandoned two-story home that sat on a desolate lot in Comfort, Texas, was known as the "ghost house." Built in the 1880s, the 3,500-square-foot home had stood empty for almost 15 years. Its last coat of white paint had flaked off, leaving mostly graying clapboard. Neighborhood children had broken windows and spray-painted graffiti inside. Many townspeople refused to go near it; some wanted it bulldozed.

But where others saw an eerie eyesore, Jack and Rhonda Hall recognized potential. They loved

it's a wrap

A new double-decker porch helps turn an abandoned eyesore into a stately home





Before
The new living room (below) was formerly a cluttered porch (below). It features 150-year-old long-shaft pine floors and an antique beamed-glass door with maximum light and visibility.

the 11½-foot ceiling, the long-trail pine floors, the once grand entrance in the entry hall, and the beamed pine showcasing that shone through the house's dilapidated roof.

Having found up nine previous homes in their 15-year marriage, neither Jack nor Rhonda were intimidated by closing gutters, fixing a few windows, or replacing the rundown kitchen and bathroom. In fact, they wanted to make the project last as long as possible. Jack, who was raised in Concord, remembers when the house beside which stood graceful upper and lower porches, which had been closed in as coarse stone masonry open. "Without those porches the house looked hoary and antique," says Jack. "Now house, it's funny, I used to walk by this house when I was younger and think, Someone needs to buy this place and fix it up. I had no idea that it would be me."

OFF TO A SCARY START

During the initial renovation phase, the couple lived in a town 75 miles away with the two of their four children who still live at home. Jack often worked late into the night, leaving walls and ceilings under the house to replace the antiquated plumbing and the wiring. One night, he thought he must have entered one of the places covered to board the house. "It was two a.m. and I saw a huge shadow pass across the wall," he says. "I was in the middle of hanging a cabinet—not the correct position to turn around to see what was behind me. It turned out to be a cat, but it seemed so sinister."

In the next few months, Jack, with a friend, closed in a 10-by-17-foot back porch to make an airy laundry room. Next they gutted the kitchen and added new cabinets, an island sink, and commercial-grade appliances. The 1½ by 9½ foot parlor was divided into a small office for Jack and a master bath. And the downstairs porch that was enclosed years earlier as the front of the house became the living room.

The marriage truly came alive when the 180-year-old woodwork, including built-in corner cabinets and pegged doors, was restored throughout the house. Every piece of wood was stripped by hand,



sanded, and coated with several layers of varnish. To patch any damaged areas, Jack used salvaged wood that closely matched the original pine. Some replacements proved—such as the beamed headboard—could not be bought, so Jack created them using a router and his table saw, satisfied with open crates he had purchased from a roadside shop. The antique hand tools he had inherited from his grandfather also were passed into use.

One of the few jobs contracted out, besides painting, was the refinishing of the floors, which were damaged throughout by water and age. "I've refinished hardwood floors before, but these were long leaf pine and I was a third I'd bench them up," Jack says.

OLD-TIME VOLCANOS

Finally, after five months, the house was livable enough for the family to move in, though finishing the 10-foot deep wrap-around porches on the west and south sides would take Jack another 1½ months. He designed the porches as a composite firm, using an old house he admired as his inspiration. "Living on old pine,

Antique hand tools drove home Jack's grandfather's help of love every part of the careful restoration of the house's treasured woodwork, including the grand staircase and wrap-around, in the entry (page 100) and here.

TRANSFORMATIONS





*...it's not like having to find a mate in
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SAFELY. journey.



ABOVE LEFT: The all-new kitchen, with green and white ceramic tile that echo the rose on the exterior of the house (**LEFT ABOVE RIGHT**). One of the house's three built-in flower cabinets.

Jack, his cousin, and a friend framed the porch with 4x6 posts and 2x12 joists. Jack rounded the edges of the columns and balustrade to match a stretch of original balustrade he salvaged from the house.

As Jack had imagined, the porch gave the house the stately yet soothing air of a plantation house. The downstairs porch has become a central entertaining spot, where the Hicks put out long tables for summertime dinner parties. Jack hopes to screen in part of the upstairs porch to make an old-fashioned sleeping porch.

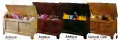
The entire project—including the addition of a pool, a pool house, and landscaping—cost the Hicks \$115,000. But Jack isn't finished yet. "There's work on the place," says Jack, who is currently turning the nearby barn into a guest house. "It's my escape."

It's hard to go to the restoration camp for day relatives of the previous owners—who had lived in the house since 1903—just a visit. "They were thrilled with what we had done and told us the family would be proud," she recounts. "I think if there are any sports living here now, they're happy ones." ■

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EXTERIOR STAINS

From clear to colorful, these finishes let the character of the wood show through

By John Verity

I LIKE THE LOOK AND FEEL OF WOOD SIDING ON A HOUSE.

So when it came time to choose an exterior finish, I spent a lot of time looking at everything other than paint. Luckily, I now had visited the world of exterior stains, and I found myself leaning the scales at the paint store, trying to figure out which product to buy.

For one thing, "stain is absorbed into or even soaks in by the outdoors," says Joe Clark, a painting contractor who has worked on several This Old House projects. "A good-quality paint job will last longer, but the prep work for staining can be far easier and faster than paint. And prep work is the hardest, and most time-intensive part of the job."

The big difference between paint and stain is how much the wood shows through the finish. Paint forms a thick film on the surface that hides the wood completely. Stain penetrates the surface to let the texture and, with some products, the color of the wood show through. Some stains also build a thin film on the surface, but they don't hide the wood's texture as much as paint.

Exterior stains come in a range of opacities, depending on the amount of pigment they contain. On one end of the stain spectrum are clear or transparent stains, which do almost nothing to mask the wood's texture and natural color. On the other end of the spectrum you'll find opaque, solid-color stains with so much pigment that they obscure the wood between stain and paint. In between these two extremes are semi-transparent stains, which provide varying degrees of stain-through. Which type you choose depends on several factors, not just the look you're after, the condition of the wood you're staining, and how much effort you're willing to expend to maintain that look when the time comes to reapply your exterior finish. ▶

PHOTOGRAPH BY MICHAEL DECK



Most exterior stains work equally well on siding, shingles, trim, doors, and the like, but many are not intended for use on porches or decks (check the product label to find out). If you're looking for a deck stain, many manufacturers make a separate line of deck stains, specially designed to hold up under the rigors of foot traffic.

Be sure to read that the species and color of the wood will not greatly affect a stain's appearance. So before you invest in enough stain to cover your entire house, pick up a quart-size can and test it on a strip of siding or an inconspicuous spot of the building just to be sure you'll get the effect you want.

Transparent Stain

Clear or transparent stain, as the name implies, has little, if any, pigment, and penetrates the wood without hiding the grain and natural coloration. Most contain a water repellent, a wood preservative, a mildewer, and an ultraviolet ray (uv) light inhibitor. Best used on new wood, transparent stain helps slow the natural color change of the wood, but only minimally. Your wood will weather and discolor faster with clear or transparent stain than with a more heavily pigmented stain, which offers more protection against the damaging forces of sun and weather. With clear stains, you can expect a service life of about 2 to 4 years, depending on exposure.

The bottom line with clear or transparent stains is that you'll have the most natural wood appearance, but you'll have to recoat more frequently if you want to retain that original "natural" color. And if you let it go too long, you'll have more prep work to do.

Semi-transparent Stain

Semi-transparent stain contains a modest amount of pigment, which will modify the natural wood color. Because the pigment helps to block wood-damaging UV, this type is more durable than clear or transparent stain. Semi-transparent stain is a good choice if you want more wood grain and texture to show through the final finish and are looking for a color other than the wood's natural tone.

The pigment in semi-transparent stains may increase durability, but it also means you have to be more careful in applying

stain. A solid-color stain hides the color and grain of the wood but offers longer-lasting protection from the elements. **NOTE:** A coating of clear stain preserves the natural color of new and older siding against the graying effects of mold, water, and mildew.

the stain in order to avoid lap marks, drips, and runs. These types of stains last about 3 to 5 years.

Solid-Color Stain

Solid-color stain contains the most pigment and hides all the wood grain but still allows some wood texture to show through. Because it has so much pigment, it blocks out the most UV. So solid-color stains tend to last much longer than transparent and semi-transparent stains. As a general rule, solid-color stain covers any previously stained, painted, or discolored wood surface. All solid-color stains form some degree of film on the wood, so with this type of stain you're only a step away from paint. Still, solid-color stain forms a thinner film than paint, which means more problems with peeling. In fact, as a category of exterior finish, solid-color stain may represent the best of both worlds—part stain and part paint. With solid-color stain, you can expect the widest choice in colors, the most UV protection you can get short of paint, the longest service life between replacements (from 5 to 10 years, depending on exposure), and the least amount of surface preparation when that time does arrive.

Bleaching Oil

Bleaching oil and weathering stain are variations on the stain theme that give wood a natural weathered look—the sort of silvery gray most usually associated with coastal beach houses, say, on Cape Cod. Products like Cabot's Bleaching Oil and Olympic Weathering Stain contain a bleaching agent that produces a silvery gray look in 6 to 12 months after application. Some other products accelerate weathering by applying a silver-colored semi-transparent stain.

New Wood or Old?

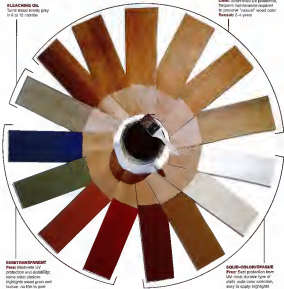
Whatever type of stain product you choose, the kind of wood you're staining, and its condition, will affect the final appearance as well as the amount of surface preparation you'll need to perform. Is it new or old wood? Was there a stain or paint on it previously? How long has it been since it was last finished? Important questions all.

With new wood, the only preparation required is to make sure the surface of the wood is clean and dry. Rough-sawn new wood

The Spectrum of Exterior Stains

Exterior stains fall into one of three basic categories—clear, transparent, or solid-color—depending on the percentage of solids (pigments) and resins they contain. Bleaching oil is the odd duck in this roundup. It has chemicals that actually accelerate the weathering process to turn wood an even drabber gray.

BLEACHING OIL
Turns wood evenly gray in 6 to 12 months.



CLEAR/TRANSPARENT

Pros: Highlights natural color of wood. Easy to apply; material can work 10-15m to paint surface down 1 regular staining procedure.

Cons: Short-lived UV protection, frequent maintenance required to preserve "natural" wood color. Retains 2-4 years.

SEMI-TRANSPARENT

Pros: Moderate UV protection and durability; some color choices. Highlights wood grain and texture; resins to paint.

Cons: Obsolete; reduced wood color shows less; may be brushed randomly. Retains 3-5 years.

SOLID-COLOR/OPAQUE

Pros: Best protection from UV; most durable type of stain; made color selection, easy to apply; highlights wood texture.

Cons: Hides wood grain; but not so badly on paint. Retains 5-10 years for oils, 6-8 years for acrylics.

will soak up more stain than smooth wood, so allow for this in estimating amounts and for the extra time it will take to apply each coat.

Oil wood preservatives a variety of challenges, depending on its condition and your staining task. If you're applying a penetrating stain over previously stained wood, your choice is limited by the darkness of the previous stain, the extent of any discoloration and weathering that's occurred, and the type of stain that's on the wood already (see "Oil-Based or Water-Based: Which Is Better?" below). The darker or more weathered the old siding, the darker and more heavily pigmented your choice in stain goes forward, since you need to cover the old color. Wood highlights, a bluish-green, are lighter dark wood somewhat and control your range of color choices. A more drastic alternative is to sand down to bare wood.

Whenever you're staining over previously painted wood, you want to make sure the surface is clean and dry. Additionally, with solid-color film-forming stains especially, you want a surface that's sound and free of any dead wood or loose fiber that might impede the bonding of the finish.

Preparing the Surface

If you compare the preparation time between exterior stain and paint, you begin to see why stain tends to be a breeze.



Wood weathers at different rates, depending on its exposure to sun and water, as shown on this chalet-style wall. The cedar changes up over the years, but even pine takes time to weather, and so does stained cedar's natural coloring, while those stains in the ground are showing the inevitable discoloration of unweathered wood.

Rarely do you see flicking or poking on previously stained wood, so there's seldom need for scraping or paint stripping when it's time to restain. A good cleaning is all that's usually required, especially if you've chosen a darker color stain than the one used.

"When it comes to preparation, washing is critical to a long finish life," according to John Doe, a painting and decorating contractor who has worked with The Old House since 1991. "And here's a tip that's counterintuitive: Whenever washing, soap suds or semi-transparent stains with detergent, start from the bottom and go up the siding." The saturated wood won't soak up residue coming off the siding above it, which prevents streaking or inconsistent stain penetration later on. "That same technique goes for using wood brighteners," says Doe. "Apply from the bottom up, not from the top down."

After spraying on the detergent with a pump sprayer or power washer, scrub the siding with a bristle brush. In some cases, pressure washing is an effective way of removing old finishes and grime. You usually can start a power washer from a paint store, hardware store, or home center. Its flow, high-pressure spray (500 psi is optimum) effectively removes dirt and mildew. Use a 25-degree spray nozzle with even strokes, 12 to 14 inches from the surface. Note that most washers typically deliver 2,500 to 3,500 psi, enough pressure to cut into the wood surface. Be sure to throttle down

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Oil-Based or Water-Based: Which Is Better?

You'll find both oil-based and water-based exterior stains at the paint store—often in the same brand and color. Which one to buy? It depends on a few different factors:

- What type of wood you're staining
- What stain is already on the wood
- What kind of look you want

The chart at right shows the trade-offs to the pros and cons of each stain, along with personal preferences. (For a full comparison of stains, you're interested in, all for water-based stains it's water-based," says John Doe, owner of The Old House since 1991. "The water-based stains tend to be more like a stain and a finish in one."

Water-based acrylic stains are easier to mix and apply, and they're "breathable" because they allow moisture to pass through. The bottom end of a water-based stain. Does not recommend for staining on an oil-based stain. To help keep the stain from applying a water-based stain over an oil-based stain.

If you're staining over existing stain, oil-based stains can be top coated with either oil or water-based. Existing water-based acrylic stains should be removed only with acrylic. If you do know for sure what your old stain is, the best choice is to remove with a water-based acrylic stain.

	TYPE	OIL	WATER
FORMER FINISH	CLEAR/TRANSPARENT STAIN	Best for new wood. Not recommended over solid color stain.	Best for new wood (except cedar or redwood). Not recommended over solid color stain.
	SEMI-TRANSPARENT STAIN	Best for new wood or over existing oil-based penetrating stain. Not recommended over solid color stain.	Best for new wood (except cedar or redwood). Not recommended over solid color stain.
	SOLID COLOR STAIN	Best for new wood or over existing oil or water-based stain. Cleanup only: staining of new oil stain.	Best for new wood or over existing oil or water-based stain. Cleanup only: staining of new oil stain.
NEW FINISH	SOLID COLOR STAIN	Best for new wood or over existing oil or water-based stain. Cleanup only: staining of new oil stain.	Best for new wood or over existing oil or water-based stain. Cleanup only: staining of new oil stain.



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accordingly so you don't damage the wood. Allow siding to dry at least 48 hours before applying the stain.

If you're applying a clear or semi-transparent stain, clean first, then use a commercially available brightener if necessary to lighten the colored graying wood. Spray on the brightener with a pump sprayer. Scrub with a stiff bristle brush only, and rinse with a garden hose. (Wire brushes or steel wool may leave particles embedded in the wood, causing stains.) Be sure to wear eye and skin protection.

When to Restain

Previously stained siding may look faded and perhaps isn't as vibrant as you'd like. However, that in itself doesn't mean a re-stain or even one coat of a replacement penetrating stain (film-forming stains can be supplied at any time). Even a chalky texture caused by the accumulation of pigment on the surface doesn't mean the finish is failing, per se. What you're looking for is evidence that the old finish has deteriorated enough that a new coat of stain can penetrate into the wood, like water into a sponge. A finished surface that is still intact will not allow the stain to penetrate. If you apply the stain anyway, you'll end up with glossy patches where the new stain was able to soak into the wood.

Try this simple test on wood finished with a penetrating stain to

determine if it's time to re-stain: Splash a small quantity of water against the wood surface. If the water beads up and runs off the surface, the finish is still effective. If the water soaks in, it's time to re-stain.

If the wood has a film-forming solid-color stain or paint on it, pour a piece of tape firmly against the surface, then tear it away and examine the back. The presence of old stain or loose wood fibers on the tape indicates the surface is not sound for staining. You'll have to sand or scrape off any loose or peeling material prior to re-staining.

Restaining is also required when the wood surface shows signs of graying, but, unless you want to go darker in color, you'll need to remove the gray discoloration by sanding with a siding cleaner or applying a wood brightener or by sanding.

Stain has many advantages compared with paint, but it doesn't come without drawbacks—perhaps the biggest being the frequency of re-staining required to keep the finish looking good, especially if you're going for a “natural” look. “There is no miracle product out there that isn't without maintenance,” says John Doe. “You have to stay on top of things.” ■

For a guide to what finish to use to apply stain, paint, or sealer, go to www.thisoldhouse.com (Internet Online keyword: This Old House) and type “the right finish” in the search box.

Fighting Mother Nature

Wood and stone. That's a kind of Mr. Wind, a day, and a night pump up to change wood's color from brown to red to a new charcoal color or to different gray tones and a coat of just a red and bright red is the last of the day of a Cupid Girl's life. In some ways, it's a little like the last of the day of a Cupid Girl's life. In some ways, it's a little like the last of the day of a Cupid Girl's life. In some ways, it's a little like the last of the day of a Cupid Girl's life.

Extreme points and stone is the where everything grows up to protect wood from moisture and the damaging shoulder tips of the sun. It's a little like the last of the day of a Cupid Girl's life. In some ways, it's a little like the last of the day of a Cupid Girl's life. In some ways, it's a little like the last of the day of a Cupid Girl's life.

Whether you stain your house or paint it, understand that you're only delaying the inevitable. No finish lasts forever and without proper upkeep, Mother Nature will win. But there's no need to surrender without a good fight. Here's how to deal with some common exterior wood-siding problems.

PROBLEM: Dirt

Dirt and grime can make your siding look less than ideal.

SOLUTION: It's a simple thing with a pencil how doesn't clean up the problem with cleaning and a little brush. For best results, consider getting a power washer.

PROBLEM: Tarnish (Black)

Black water and redwood stains are common and other chemical “tarnish” that when wet can erode to the surface, leaving brown stains.

SOLUTION: Sand the wood with a fine-grit sandpaper and a solution of 1 cup household bleach to 2 1/2 cups water and 1 cup household bleach to 2 1/2 cups water. Then apply a water-resistant sealer.

PROBLEM: Excessive Weathering

The wood surface has already gone gray from the combined effects of sun and weather, and a good scrubbing with detergent can't make things any better.

SOLUTION: Many commercial products are available that can brighten wood. These typically contain a bleaching agent and can remove some dirt, grime, and weathering, but they can't completely remove a solid-color stain or weathered wood. The only way to get rid of it is sand down to fresh wood. An easier solution is to add color red up of the wood with a darker color or a solid-color stain or paint.

PROBLEM: Mildew and Mold

Mildew and mold are microscopic fungi that usually appear as dark spots, black blotchy stains, or greenish-brown patches, especially on surfaces in humid environments (e.g., north-facing side of the house, under eaves, etc.). They do not cause structural damage to the wood.

SOLUTION: For a mild case, scrub with a commercial siding cleaner formulated to remove mildew and mold. Or use a home brew solution consisting of 1 part detergent, 10 parts household bleach, and 30 parts warm water. Rinse well with water. (Warning: Never mix household bleach with or against cleaning products. The resulting fumes can be poisonous and can be fatal.) To prevent recurrence, try to keep the surface dry by removing or waterproofing shade should occur.

PROBLEM: Rust Stains

Common on cedar and redwood, rust stains in the wood result from iron in the wood.

SOLUTION: Cover with water and solution to type of wood bleaching. To prevent recurrence, prime the redwood with an oil-based primer. To speed the process, sand the siding with a fine-grit sandpaper.



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Greed Illustrated

It doesn't have to be about more money. Or more power. It can be about wanting the ball more than the other guy. At its best, it can be a struggle of wits. —As illustrated in *Sports Illustrated*

storage solutions

Stuff. It can overwhelm the whole house. To help you get control of your belongings, we've zeroed in on four "hot spots" where mess seems to multiply: the garage, the closet, the kitchen, and the workshop. On the next 13 pages we'll show you lots of ingenious ideas for where and how to store things. Some are as extensive as a total garage makeover; others are as simple as the handy GripTwist gadget (right) for keeping extension cords coiled. So if the stuff that you own is taking over your life, it's time to take charge.



inside:

garage



P.98

closet



P.104

kitchen



P.106

workshop



P.110





A jumbled garage is transformed into orderly storage zones by a team of experts—with ideas any homeowner can use

If your garage has become a holding pen for junk, you're not alone. According to recent industry research, about 40 percent of garages in the U.S. are made for two cars, but only one out of three of them actually houses a second car. That leaves a lot of extra space for junk to pile up.

One family's home in Westport, Connecticut, was a case in point. "The garage looked like a bomb had gone off in it," says the wife. "It was so choked-full of stuff we could barely fit one of our cars in there, let alone two." The floor was jammed with ladders, bikes, and garbage cans. There were taping powers of papers bundled for recycling, cases of bottled water, cans of paint, a triangle of boxes and bins, soccer balls, and tennis rackets strewn all over. The garage was also a repository for the boxes of extra glasses and dishes the couple, and relatives, liked to keep close by.

The couple longed for order. They also wanted an area where

their two teenagers could work on school and craft projects. The workshop was too small and buried in clutter.

The Connecticut-based design team of Amy Leonard and Ingrid Lemos came to the rescue, designing a plan to maximize the area. First Leonard and Lemos made five categories of like items that needed corraling. Then, with help from the pros at The Container Store and Gladstone GarageWorks—and adding their products and advice—they created "themed" storage areas along the walls and tucked into the corners.

While the Westport couple had the advantage of an on-site makeover team, "any homeowner can tap these home specialty plans for free space-planning advice from their in-house experts," says Leonard.

Here's how Leonard and Lemos organized the contents of the family's garage.

—Scott Kishling



Zone 1: Everyday Items
Zone 2: Party Supplies
Zone 3: Family Workstation
Zone 4: Sports and Seasonal Stuff
Zone 5: Automotive Tools

Before



WHAT A DUMP: This garage left no room for a car. To restore order, our organizing experts first sorted the mess into categories, then created five storage zones for easy access. Shelves, bins, and a wall system with cabinets and a workbench were installed to give every inch of space one more use.

Photo: [unreadable]

1 Easy-access area for everyday items

By the kitchen door (seen here) is the spot for cleaning supplies, the fire extinguisher, a house-key holder, and other items that need to be immediately accessible. Garbage cans and a travel recycling bin on wheels (see next) are also stored in this area for convenience. "A rolling recycling bin is great," says designer Amy Leonard. "Load it up in the garage, then wheel it to the outside for pickup."

**2 A place for party supplies**

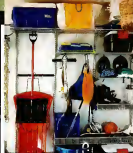
It made sense to keep extra party dishes and glasses close to the kitchen, so the area to the left of the recycling bin was designated as the entertaining zone (see next). The wall is lined with heavy-duty industrial shelving for surplus groceries and other bulk supplies.

USING UNTAPPED SPACES

As in most garages, space in this one was limited. "Our goal was to shove as many things as possible," says design pro Amy Leonard, who managed to tap every inch of unused wall space. Heavy-duty hooks that screw into concrete block were installed in odd nooks and crannies, keeping boxes tidy. Hooks were also used to maximize dead space under wall shelves (bottom right). "The ceiling is a good untapped storage area, too," says Leonard, but it wasn't a possibility at this house. The garage's 8-foot clearance was fine, but the motor for the garage door opener was in the way. Still, the designers didn't overlook the potential of a structural beam spanning the back of the garage, where they put a strip of Shaker wooden pegs (top right). "These are great for hanging buckets and watering cans, because they're easy to get at," says Leonard.

**3 Family workstation**

Against the back wall went a new, large workbench (above)—which also functions as a potting table and as a project area for the kids. As part of the plan, a new fridge on casters (right), filled with three cases of bottled water, fits right under the bench. Hazardous chemicals are securely stored in wall-mounted cabinets above the workbench, where they can be kept safely under lock and key.

**4 Holding pen for sports gear and seasonal stuff**

The wall opposite the kitchen door is fitted out with narrow shelves for sports gear and lend-keeping equipment (top). "The problem with deep shelves," says Leonard, "is that they attract two layers of stuff, so you can't readily get access to what you need when you need it." The wall space right next to the shelves (below) features a series of sturdy hooks for storing seasonal items like ladders and hoses.

PHOTO: JAMES HARRIS

PHOTO: JAMES HARRIS



5 A home for automotive tools

A rolling cart (labeled 5) holds snow tires, jumper cables, and other car-related gear. See-through wire bins (labeled 6) keep cables and cords visible yet contained. "We also built in flexibility," says Knepper. "The cart has a toolbox, so it can be used to accommodate various tasks."



CREATE YOUR OWN GARAGE STORAGE PLAN

There's untapped potential in any garage to make room for more storage. Here are some rules from the pros.

- 1. CLEAR OUT** Weed out all the junk you don't need. Keep only what you use; give away what you don't, and throw away what's broken and taking up precious space.
- 2. MAKE A PLAN** Treat your garage like any other room in the house. Take measurements and draw a floor plan to help you visualize what will fit and where it can be placed, just as you would for a kitchen or a dining room.
- 3. CATEGORIZE** Decide what items you'll use often, like garbage bags and cleaning supplies. These things should be kept nearest the door. Next, map out space for seasonal equipment: lawn mowers, weed trimmers, snowblowers, etc. Avoid planning big items, such as lawn mowers, in a corner where they'll chew up space. Try to park them under a shelf unit. And be sure to clip ladders, shovels, rakes, and other garden tools into a wall rack off the floor.

Finally, get seasonal space hogs such as snow tires, kayaks, and bikes off the floor. These items should be relegated to walls or hung from the ceiling. A hoist pulley system (available at home centers or online) that operates like the cords on window blinds and has clips or straps to hold large items can be installed directly into ceiling joists.

4. CONTAINERIZE Keeping things in containers not only lets you get them off the floor but keeps them clean. Transparent stackable bins conserve space and also allow you to see their contents. Always label opaque containers so you know what's inside.

5. SAFETY-PROOF Designate a safe space for hazardous materials like fertilizers, pesticides, and paint, so kids can't get into them. Sharp gardening tools should also be hung up out of reach, and chain saws and other sharp tools stored in locked boxes.

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Think of a closet as a personal valet—there to present what you need efficiently and quickly so you can get on with your life



Double Up

This wall-to-wall system (above) is custom built in a dressing room, but the same storage-efficiency principles can be applied to an existing closet. First: Double-hung rods allow you to store twice the number of garments in the same

space. Second: Narrow, stacked shelves keep sweaters and shirts in neat piles that don't topple over. To find room for similar shelves, think vertically: The space between the top rod and the closet ceiling is often a perfect fit.



Footwear File

A slim 8 inches deep, this well-mounted shoe cabinet (above) holds approximately 10 pairs. Five steel bins in a birch veneer frame, \$179; three bins version in steel, \$149, from Topdog.



Shoe Cubbies

Getting shoes off the floor is one way to avoid closet chaos. This grid of open shelves (above) puts each pair on view for quick retrieval—no need to open any boxes. A painted wood step stool is assigned to permanent duty for reaching those topmost pairs.

Custom Interior

Get organized with a made-to-order closet installation like this one (above) from California Closets. Tailored to the contours of your wardrobe, the right mix of drawers, open shelves, rods for long and double hanging, and shoe shelves help make madness a habit. Of wood laminates, this installation cost about \$9,000.



Stacking Organizers

Ready-made wooden drawer and shelf units (above) boost the storage capacity of an existing closet or a dressing alcove in no time flat. Drawers open on metal glides; felt feet prevent slipping. The Fairfield Modular Closet Collection (15-inch square or 30-by-15-inch rectangular sizes), \$69 to \$129, from Hold Everything.



All too often, the kitchen and clutter go hand in hand. To create order, you need to maximize the efficiency of every nook and cranny

Just a few months ago, every inch in Margaret and Chris Swartz's kitchen in Edgemoor, Maine, was covered with appliances, spice jars, pushchairs, papers, and cookbooks. "It was a nightmare," says Jane Sharratt, the space planner and interior designer who helped them remodel the space. Her design solutions were those that doubled the kitchen's storage capacity—and turned it into a cheerful, well-ordered oasis.

A storage-packed island

A large central island is the backbone of this 400-square-foot kitchen. With all of the clutter that Margaret wanted to go home—a cooktop with downscale styling, a prep sink, a succulent, a breakfast bar, and lots of storage compartments—it grew very big very fast. But Sharratt cleverly broke down the massive unit, 9 feet long and just over 24 feet wide, into four smaller parts that help define the different zones of the kitchen.

On entering the home from the kitchen door, guests encounter a welcoming L-shaped breakfast bar 6 inches lower than the 36-inch height of the rest of the island. The side facing the open sink, dedicated to food prep, is furnished with an additional sink, a pull-

out towel rack, and wider drawers for root vegetables. A below-counter microwave and a gas cooktop anchor the side opposite the refrigerator. That side also contains a special spice drawer and a stainless steel trough for vinegars and cooking oils that was built into the countertop. The front face of the island houses a deep-drawer drawer for pot storage.

Details that encourage tidiness

Elsewhere in the kitchen, to the right of the main sink is a baking nook, defined by a countertop that's dropped down to 36 inches—an ideal level for rolling out dough. Below are spacious drawers for bowls and cookie sheets; the cabinet above holds dry goods as well as a row of small drawers for measuring cups, cookie cutters, and spices. A built-in bench adjacent to the baking nook serves Margaret's young son as a play table, as longed for his open-to reveal hidden storage. Sharratt even devised a structural post to storage duty by adding a towel and wrapping both with custom-made wicker-covered pot racks. "You left no stone unturned," says Margaret. "I finally have a place for everything." —*Timothy Dowd MacLellan*



IN SWARTZ'S HOME, ABOVE INFORMATION, BELOW, STORAGE



Specialized Bins and Drawers

The island is outfitted with an assortment of organizers, including pull-out wicker bins (above center) for fruit and root vegetables and a large drawer front (above left) that opens to reveal compartmentalized slide-out storage shelves for cutting boards, pot lids, and pots and pans.

Open Bookshelves and Pull-out Towel Racks

One corner of the island (above) also houses open shelves for cookbooks and a pull-out towel rack, which comes in handy by the prep sink.





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Oil Well

Built into the island just above the cooktop, a stainless steel trough provides a neat nook for cooking oils and vinegars (above). A tray inside lifts out for easy cleaning.

Inset: A central island largely devoted to storage is speckled with a sink, a microwave, and a cooking nook built on shelves. The straight line of the tray-fronted cabinet also helps to create the impression of a calm and orderly space.



More ideas and useful products to help you clean up the mess in your kitchen



Toe-kick Drawers

These clever custom units (above) tap the unused space behind the cabinets' toe-kick area. Wide and shallow, the drawers are perfect for holding trays, baking pans, even linens. (While drawers can be installed under existing cabinets, it's easier to design them in to a new cabinet plan.)



Pull-out Pantry

The pantry cabinet (above) squeezes more shelf life into a sliver of space. You may already have a gap between appliances or cabinets to put to such use. Or, as was done here, you can incorporate the shelving into a custom unit.

Lid Bin

Mounted to a cabinet shelf, a slide-out stainless steel basket (above) keeps pot lids from clattering to the floor. Estimate: Pot Lid Holder (6 by 23 by 6 inches), \$54, from Hold Everything.



Slide-out storage

Base cabinets can feature a wealth of easy-access storage units (above), including slide-out shelves designed for pots and pans, pull-out wire bins for cooking staples such as garlic and onions, and deep, full-extension drawers, which can hold everything from soup pots to neat stacks of plates.

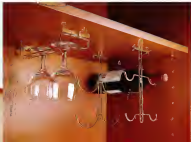


Drawer Dejunker

With these drawer organizers (above) you can tailor-make compartments to fit anything you want to put inside. Dividers come as four 2-foot acrylic strips; just snap off the length needed and slide it into the self-adhesive mounts in whatever configuration you want. Custom Drawer Organizers, \$3.99 each up, from The Container Store.

Mini Bar

Turn the space under cabinet shelves into hanging storage for wine bottles and stemware. This set of steel racks (above) simply screws into the underside of a shelf and holds four bottles (at a slight angle so the cork stays moist). Hanging Bottle Rack, 6 by 36 inches, about \$7 per set. Hanging Glass Racks, available in 8-inch (\$2.75) and 16-inch (\$4.95) lengths, from Lee Valley Tools Ltd.



In the workshop you want to keep your workspace clear of clutter, yet have your tools within easy reach

Setting up a workshop is one thing, but keeping tools and supplies organized from one project to the next is another. "Maintaining clarity only makes the space more efficient," says *The Old House* master carpenter Norm Abram. A case in point is the bench (below) that Norm made for the New Yorker Workshop, which handles a staggering amount of supplies in a neat and orderly way. Here's how:

Adjustable Cubbies

Open shelves get tools off the work surface, but they can also create messiness. "Shelves easily get disorganized as things get stacked on one another," says Norm. To solve that problem, Norm turned a wall of wood shelves into a system of adjustable cubbyholes that offer endless options for organizing materials. To add a compartment, he just slips in a new vertical partition in the grooved shelves; to enlarge a cubby, he takes a partition out.

Full-Extension Drawers

"Being able to pull drawers all the way out is very important," says Norm. "It's like a slide-out shelf giving you a clear view of everything in there." Norm organizes drawers by category—one is devoted to routers, another to drills, etc. "Organizing drawers by function is a good system for anyone," he says. (A Workshop Hatch how-to video and measured drawing are available for \$24; drawing only, \$12; from www.newyorker.com.)

Wooden Walls

An easy and inexpensive way to hang tools and supplies is to drive finishing nails or screws into wall-mounted, 1/2-inch solid wood paneling, says Norm, who prefers it to pegboard for its versatility. "That way, you don't have to buy any special gadgets to hang something up."



Magnetic Tool Bar

Taking a tip from kitchen knife racks, this magnetized wooden bar (above) keeps tools up off the workbench but out in plain sight. Magnetic strips can manage a 3-pound object. A 24-inch bar is \$13.95, from Lee Valley.



Small-Parts Storage

These small aluminum cases (above) were originally made to store gears and watch movements, but they serve equally well as see-through holders for diminutive workshop gear, from screws to hinges. And the clear screws-on lid makes labeling unnecessary. In board sets of 10 or more cases (from 1 1/2-inch to 2 1/2-inch diameter), \$2.50 to \$6.95, from Lee Valley Tools Ltd.

More workshop storage ideas

Storage Units on Wheels

This drawer-filled island workbench (above) provides valuable work surface accessible from any side. It moves on industrial rollers, with locking brakes to ensure that the bench stays put when you're working on a project.



Looking Up

This workshop (left) also made smart storage use of the ceiling. Pipe clamps are lined up for action—and easy to grab—on a ceiling rack (above left). And an array of nails and screws is neatly sorted in a ceiling-mounted organizer that works like a giant revolving spice rack (above right). Shells (or lids) are bolted into a series of drilled recesses made in pine boards that form the octagonal hub. Each jar then gets screwed into a lid. A broomstick runs through the center, and the spindle rests in plywood supports suspended from a daisy in the ceiling.

Get more ideas for organizing every part of your house. Go to www.bobvila.com (ABC, Tuesday) *The Old House* and type "storage" in the search box.



PHOTO COURTESY OF ABC

MAGNETIC TOOL BAR: JEFF HARRIS; SMALL PARTS STORAGE: JEFF HARRIS

Painting Out of a Bucket

Even carpenters have to paint now and then, and I've learned over the years that painting right out of the can isn't a great idea. For one thing, a can full of paint is heavy. Also, the brush will eventually saturate the paint with paint chips, dirt, or dust it picks up from the surface. That's why, after stirring the paint, I always pour it into a small metal or plastic bucket. It's a lot easier to hold (see diagram), and if the paint goes spoiled I haven't spent an entire gallon. You can even buy plastic bowls that eliminate the hassle of dealing with the bucket.

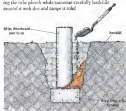
Of course, pouring paint out of a can will fill its rim with paint, which will dry out, turn crusty, and spoil what's in the can the next time you open the lid. So when I first open the can, I take a finishing nail and punch a few holes through the tough that the lid fits into. Four or five evenly spaced holes are all it takes for the paint to drain out of the rim and back into the can.



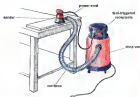
Setting and Bracing Concrete Pier Forms

Sometimes it's the simple things that seem most baffling to novices. Like those life-sized performance jokers called *scumbags* used to make concrete pour like thick putty. The question most people have is how to leave the tubes as they won't be pushed out of plumb while being filled with concrete. Well, forget the tubes and braces and anything else you thought you needed. Don't waste time.

After digging (or drilling) a hole and leveling the bottom, we pour a 2 by 3 foot, 4 foot thick concrete footing at the bottom for a standard 12-inch-diameter tube (I've had to rebuild lots of sagging decks and porches over the years, and a concrete problem is almost every case—the lack of a proper footing, so don't slump on it). After 24 hours or so, we return and install the conditioned tube on the footing. Then it's just a matter of bolting the tube places while someone carefully handles it around it with care, and it's done.



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PHOTOGRAPH BY RICK LEN

This Old House CLASSICS

This Old House Classics: A week-by-week synopsis of vintage episodes airing on HGTV and broadcast television. For stations that carry TCH Classics in your area, check TV Listings, page 130.



TCH general contractor Tom Egan (above) and landscape contractor Roger Cook (below) worked on the Lexington, Mass., project in 1984; the Lexington project wraps—and repeats!—again in March.



The crew of *This Old House* renovated this 1910 Colonial Revival in Lexington, Massachusetts, back in 1988.

Episode 25 (of 26) (Airs March 5-6)

- As the Lexington project nears completion, the crew installs the acid-lavender kitchen countertops.
- Industry expert Bob Murchi denounces the latest trends in wallpapering.
- Updates the stain-resistant carpet: a put to the test against a flurry of spills.
- TCH master carpenter Natan Abram's rough-in to the newly in the master bathroom.

Episode 26 (Airs March 9-10)

- The project's final episode begins with a tour of the

finished house by interior

- designer Joe Rodgers.
- TCH painting and heating expert Richard Indrorny installs the air conditioner, garage disposal, and shower door.
- Alarm specialist Don Martin tests out the new security system.

Episode 1 (Lexington project repeated) (Airs March 16-17)

- The Lexington project begins with a survey of the site, as supervised by the community.
- A prime example of adaptive reuse: a Renaissance-style elementary school that's been transformed into a condominium.

- A look at the work in progress: relocation of an 18th-century Anne.
- The tour wraps up at a once-disputed two-family home now converted into condos and

Episode 2 (Airs March 20-21)

- Homeowner Mary Ann and Jim Davis give a walk-through of their side-by-side two-family home.
- The 1910 house has been well-maintained structurally, as evidenced by the repaired rubble stone foundation.
- Inside, many original details are intact, including the southern yellow pine ceilings

- and wainscoting.
- The mechanical systems, though a bit antiquated, appear to be sound.
- Having more space, the homeowners plan an addition for a bedroom, porch and new garage.

Episode 3 (Airs March 26-27)

- Excavator Herb Brackett digs the new foundation with the help of a light-tech laser level.
- TCH visits a prewarers showhouse in New York City that benefits the right against AIDS.
- Back at the project house, Mary Ann thinks through the new floor plan.

ON THE JOB
pgs. 10-15

Belovet & Altan: Architectural design and construction firm—CueSphere, Perrysburg, OH, 877.938.0801, www.cue-sphere.com.

Subfloor Subflo, Super Floors Inc.,
Bendale, Ontario, Canada, M6A 3B2

Novel idea—Jim Roemer, *This Into That*, Berkeley, CA, 510-841-7834, www.thisandthat.com.

HOUSE CALL
WITH STEVE
pg. 18-22

Kitchen Designers
Connection Supplies, CRD,
Kitchen Concepts, Inc., Norwell,
MA, 781-871-2400,
www.kitchendesignersconnection.com
Space maker: Mairlin Science: The Custom
Floor for Living, 800-990-7139,
www.mairlinscience.com; Rev-A-Shed,
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www.solospace.com; Mag-
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Morgenthaler, New York, NY 212 989-4300, www.morgenthaler.com; Tabular Spica Co., Gainesville, GA, 770-734-0452, www.tabularspica.com

ASK THIS OLD HOUSE
pg. 24-25

Our thanks to Plumbing and Heating instructor Anthony Gagliano, Anthony Michael Plumbing, New York, NY, 718-688-4122.

Epoxy wood filler: Advanced Repair Technology, Cherry Hill, NJ; 607/264-5040; www.advancedrepair.com. **BoFix and SculptWood by System Three Resins Inc.**, Auburn, WA; 800-333-5134; www.systemthree.com. **Drywall Filler**, NDS, Inc., Lindsay, CA; 800 726-1594; www.nds.com. **OSB-Seraxcel**, Board Association, Toronto, Ontario, Canada; 416 730 3090.

Electronics: Allen Callum, Callum Electronics, Lexington, MA, 781-862-4616.

UPKEEP:
FLANG THE FINISH
pg. 36-40

Finishing expert: Michael Dondos, Puyallup, WA, 253 770-1666, www.michaeldondos.com
Scratch cover pulls: Scratch Off Furniture Polish, Rt. 845, Box 1, Shiloh, NC; 866 751-7781; distributed by: Cheyenne Sales, Fort Charlotte, FL, 941-613-1017, www.cheyennesales.com; Old English Scratch Cover, sold by Archibon Hardware, 800-232-4353, www.archibon.com. *Wm. Ed. (aka) DND*

Federal Trade, U.S.P.; Baltimore.

BY DESIGN:
FRONT AND CENTER
pg. 50-51

bow makers Wayne Handwerks, WCH Woodworking, Watts, AZ, 520-798-1135, www.wchwood.com
Hatch's Woodworking Company Inc., Brimley, NJ, 508-783-1415, www.hatchwoodworking.com
Majors Design, Warrville, VA, 519-625-2349, www.majorsdesign.com
David and Wade Johnson, Johnson's Custom Woodworking, 707-944-8218, www.johnsonscustomwoodworking.com
David Johnson, Jase Le Gribault, Casper, CA, 707-864-0635, www.johnsonscustomwoodworking.com/brand/
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HOMESOWNER'S HANDBOOK INSTALLING A GARAGE FLOODLIGHT pgs. 57-63

Electrical contractor: Allen Gullone, Gullone Electric, Lexington, MA, 781-462-4634. Mirror cover: Sealed Air Model ST1107E. R.R. Electric Mfg.

Bypass pruner: *Felco 2 by Felco*; available at local garden stores or through www.felco.com, Kirkland, WA, 425-428-3263.

Avail logger: PowerGrip #7972 by Fakem Gaskets Tools, White City, WI, 800-900-4849, www.fakem.com

Avail presser: #2014493 by Ace Hardware Corp., Oak Brook, IL, 630-590-6808, www.acehardware.com

Folding saw: BS 7343 Professional Razor Tooth 7-inch by Corona Clipping, Corona, CA, 800-234-1347, www.coronadown.com

Walking Ably, p. 48 Cited trials, like this process, help keep plans on track and healthy.

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**TALKING SHOP:
PRUNERS AND LOPPERS
pg. 54-55**

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Fluorescent pendants Red Dot Electrical Supplies, Thomson & Son, Memphis, TN, 901-512-5000.

WINCHESTER TV PROJECT:
FROM START TO FINISH
pp. 66-70

Architect: David Sealing, AIA, Sealing/Brown Architects, Winchester, MA, 781-721-1219, www.sealingbrown.com

Custom cabinetry: The Kennelbe Company, Beth, ME, 207-643-1111, www.kennelbecompany.com

Cabinetmaker: Tim Donavan, Winchester, ME, 207-882-1214

General contracting: Stephen Long, Stephen F. Long Handbuilder, Mendon, VT, 802/775-6102.

THE KINDEST CUT
pg. 73-76

Chen, S. and J. B. Reid, 1995. *Mathematical Biology*. Wiley, New York.

For more information: The Fencing
Book by Lee Ratch, Taunton Press,
Newton, CT, 800-477-8722,
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EXTERIOR STAIRS
pg. 66-68

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4,000 sq. ft.	\$4,000	\$8,000	\$6,000	\$12,000
5,000 sq. ft.	\$5,000	\$10,000	\$7,500	\$15,000
6,000 sq. ft.	\$6,000	\$12,000	\$9,000	\$18,000
7,000 sq. ft.	\$7,000	\$14,000	\$10,500	\$21,000
8,000 sq. ft.	\$8,000	\$16,000	\$12,000	\$24,000
9,000 sq. ft.	\$9,000	\$18,000	\$13,500	\$27,000
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Statesville, North Carolina

In her later years, Statesville legend Virginia Dancy Minkins developed a major suit for her suit, and she wore in dozens of strips in a long line and the others had gone a special: this 2,033 square-inch Croftman brought, built for her father, Julius Dancy, in 1934. But Mrs. Minkins's fellow citizens didn't let her lose touch with the, in 1938, she became one of the first female winners in the South, despite the fact that spread wooden shoe ornaments had to be made so she could reach the outdoor platform. Her finger print, photographed by Amelia Earhart, was long, measured by the house's front door, and was ultimately awarded to the Smithsonian Institution.

The house's main floor consists of two bedrooms, a den, and living and dining rooms, all lined up with wood-veneer flopping. There is also a bathroom, a kitchen, and a breakfast nook with built-in seating. Several paneled interior doors and the original floor are left. A map, winding across: leads to the 900-square-foot attic, which is led by a wide shut door.

After Max Vigna passed away in 1984, the house became the studio of my mother Ron Enos—creator of the hand-carved Roly-Poly pull-toy. In 1997, Ron sold the property to neighboring Mitchell Community College, where

The college plans to demolish the structure as part of its campus expansion unless the home is moved. The quarters need to be updated, and the asphalt roof requires repairs.

If you know of a house that should be saved, please write to Save This Old House, 6400 Avenue of the Americas, 37th Floor, New York, NY 10035.

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1991) flowers for the Daisy Macdonald House's decorative-mural and foundations, wood panel, and chandeliers were culled from the Catalina House just before the Great Flood of 1916 washed away the rest of the residence—and much of south-east Los Angeles County. **ARROW 1999** The kitchen still has its original linoleum glass-fronted cabinets. **ARROW 1999** A pair of potter chairs with Arts and Crafts-style stained glass separates the dining and denning rooms.

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